



US00D960114S

(12) **United States Design Patent** (10) **Patent No.:** **US D960,114 S**
Mench et al. (45) **Date of Patent:** **** Aug. 9, 2022**

(54) **TAMPERING DETECTION ENCLOSURE** 7,451,627 B2 11/2008 Horngren et al.
D613,697 S 4/2010 Symons
(71) Applicant: **University of Tennessee Research** D632,030 S 2/2011 Lumsden
Foundation, Knoxville, TN (US) 7,887,360 B2 2/2011 Andrade
7,963,131 B2 6/2011 Zhang et al.
(72) Inventors: **Matthew M. Mench**, Knoxville, TN 8,016,792 B2 9/2011 Wright et al.
(US); **Matthew A. Young**, Rockford, D680,083 S * 4/2013 Olson D13/156
TN (US) 8,408,929 B2 * 4/2013 Solon H01R 13/639
439/301
(73) Assignee: **University of Tennessee Research** 8,474,784 B2 7/2013 Kashmirian
Foundation, Knoxville, TN (US) 8,556,859 B2 10/2013 Nilson
8,848,347 B2 9/2014 Doorn et al.
(**) Term: **15 Years** 8,960,973 B1 * 2/2015 Kathawate H01R 4/70
362/375
(21) Appl. No.: **29/696,559** D782,287 S 3/2017 Chen
(22) Filed: **Jun. 28, 2019** D795,044 S 8/2017 McNutt et al.
D803,667 S 11/2017 Chen
9,907,907 B1 3/2018 Salazar
9,944,436 B2 4/2018 Kalmanides
D826,874 S * 8/2018 Mench D13/184
D826,875 S * 8/2018 Mench D13/184
D871,195 S * 12/2019 Truett D8/356
10,532,869 B2 1/2020 Iorio
10,722,662 B1 7/2020 Mench et al.
10,722,680 B1 7/2020 Mench et al.
2004/0097120 A1 * 5/2004 Limber H01R 13/6392
439/369
2004/0238201 A1 12/2004 Asakura et al.
2005/0167147 A1 * 8/2005 Marsac G02B 6/4446
174/92
2008/0013284 A1 1/2008 Nagahashi
2008/0035035 A1 2/2008 Stone
2008/0171981 A1 7/2008 Khan
2010/0255704 A1 * 10/2010 Gardner G01G 23/017
439/301
2011/0215683 A1 9/2011 Nakasuji
2014/0100533 A1 4/2014 Lyons
2014/0303595 A1 10/2014 Justus et al.
2015/0060455 A1 3/2015 Chou
2015/0367119 A1 12/2015 Stillson
2017/0049954 A1 2/2017 Edwards
2017/0165437 A1 6/2017 Lopansri
2019/0127134 A1 5/2019 Iorio
2019/0275263 A1 9/2019 Lopansri

Related U.S. Application Data

(63) Continuation-in-part of application No. 15/492,704,
filed on Apr. 20, 2017, now Pat. No. 10,722,622.
(51) **LOC (13) Cl.** **13-03**
(52) **U.S. Cl.**
USPC **D13/156**
(58) **Field of Classification Search**
USPC D13/184, 156; D8/356; D10/104.1
CPC G01G 23/017; G02B 6/4446; H01R
13/6392; H01R 13/639; H01R 4/70
See application file for complete search history.

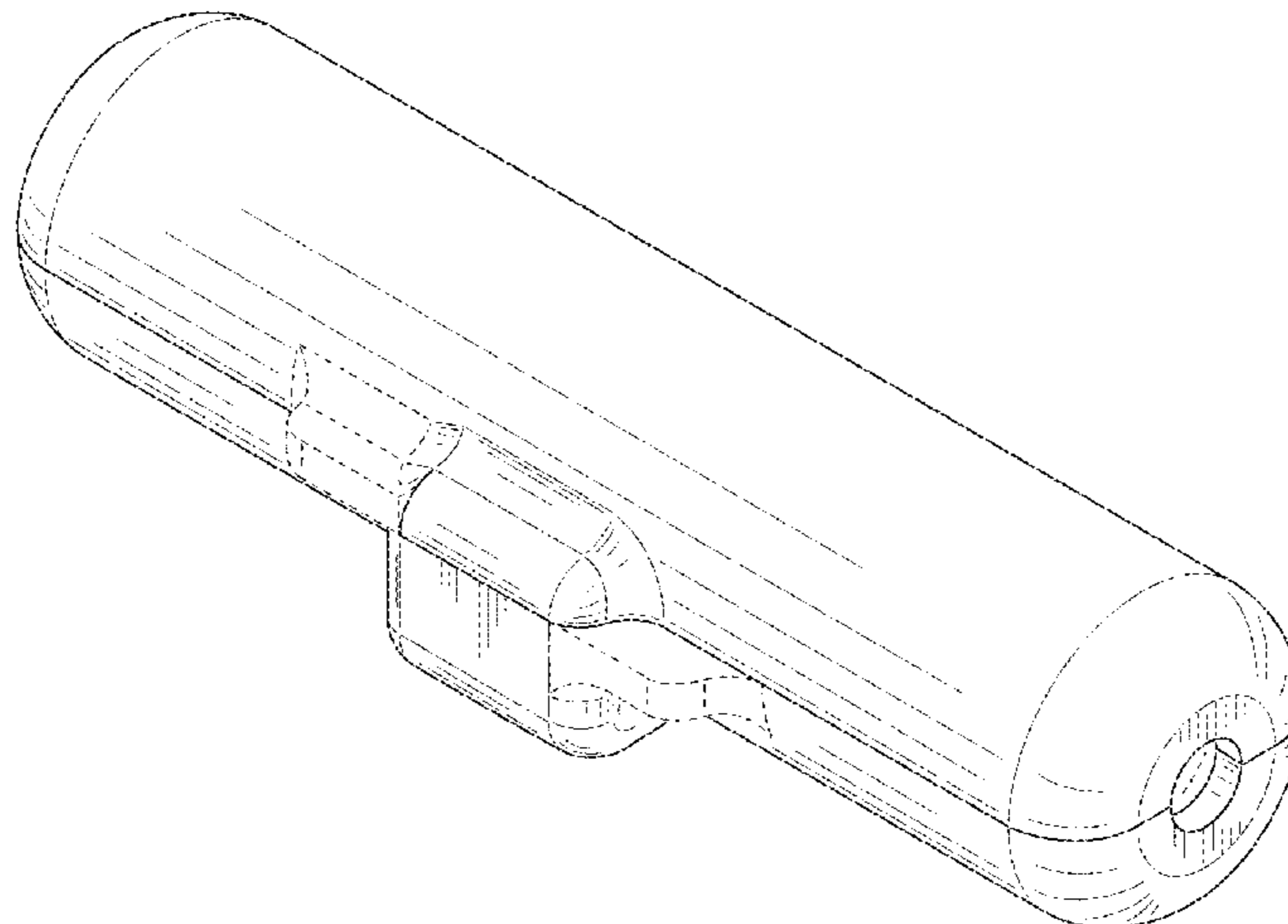
(56) **References Cited**

U.S. PATENT DOCUMENTS

4,286,640 A 9/1981 Knox et al.
4,425,116 A 1/1984 Bilstad et al.
4,782,977 A 11/1988 Watanabe et al.
5,427,260 A 6/1995 Mueller et al.
5,531,695 A 7/1996 Swisher
5,893,475 A 4/1999 May
6,065,408 A 5/2000 Tillim et al.
6,265,665 B1 7/2001 Zahnen
6,328,355 B1 12/2001 Bortz
D465,843 S 11/2002 Guala
6,553,930 B1 4/2003 Johnston
6,926,165 B2 8/2005 Conti
7,074,212 B1 7/2006 Florea
7,141,738 B2 11/2006 Marsac et al.
7,273,984 B2 9/2007 Murphy
D569,349 S * 5/2008 Preston D13/156
7,438,198 B2 10/2008 Pickles

OTHER PUBLICATIONS

Interview Summary corresponding to U.S. Appl. No. 15/492,704
dated Oct. 29, 2019.
Office Action (Restriction Requirement) corresponding to U.S.
Appl. No. 15/492,704 dated Sep. 12, 2019.
Office Action (Restriction Requirement) corresponding to U.S.
Appl. No. 16/596,479 dated Dec. 19, 2019.



Notice of allowance corresponding to U.S. Appl. No. 15/492,704 dated Feb. 5, 2020.

Notice of Allowance corresponding to U.S. Appl. No. 16/596,479 dated Mar. 18, 2020.

Corrected Notice of Allowability corresponding to U.S. Appl. No. 15/492,704 dated Mar. 23, 2020.

Notice of Allowance corresponding to U.S. Appl. No. 15/492,704 dated May 28, 2020.

Notice of Allowance corresponding to U.S. Appl. No. 29/696,560 dated Mar. 15, 2022.

Notice of Allowance corresponding to U.S. Appl. No. 29/696,560 dated Dec. 3, 2021.

Notice of Allowance corresponding to U.S. Appl. No. 29/696,560 dated Aug. 12, 2021.

* cited by examiner

Primary Examiner — George D. Kirschbaum
(74) *Attorney, Agent, or Firm* — Jenkins, Wilson, Taylor & Hunt, P.A.

(57) **CLAIM**

The ornamental design for a tampering detection enclosure, as shown and described.

DESCRIPTION

FIG. 1 is a top, front, and right perspective view of a tampering detection enclosure showing the design according to a first embodiment;

FIG. 2 is a top, rear, and left perspective view of a tampering detection enclosure showing the design according to a first embodiment;

FIG. 3 is a front elevation view thereof;

FIG. 4 is a rear elevation view thereof;

FIG. 5 is a right side elevation view thereof;

FIG. 6 is a left side elevation view thereof;

FIG. 7 is a top view thereof;

FIG. 8 is a bottom view thereof;

FIG. 9 is a top, front, and right perspective view thereof showing an alternate position of the embodiment shown in FIG. 1;

FIG. 10 is a bottom, rear, and right perspective view thereof showing an alternate position of the embodiment shown in FIG. 1;

FIG. 11 is a rear elevation view thereof showing an alternate position of the embodiment shown in FIG. 4;

FIG. 12 is front elevation view thereof showing an alternate position of the embodiment shown in FIG. 3;

FIG. 13 is a right side elevation view thereof showing an alternate position of the embodiment shown in FIG. 5;

FIG. 14 is a left side elevation view thereof showing an alternate position of the embodiment shown in FIG. 6;

FIG. 15 is a top view thereof showing an alternate position of the embodiment shown in FIG. 7;

FIG. 16 is a bottom view thereof showing an alternate position of the embodiment shown in FIG. 8;

FIG. 17 is a top, front, and right perspective view of a tampering detection enclosure showing the design according to a second embodiment;

FIG. 18 is a top, rear, and left perspective view of a tampering detection enclosure showing the design according to a second embodiment;

FIG. 19 is a front elevation view thereof;

FIG. 20 is a rear elevation view thereof;

FIG. 21 is a right side elevation view thereof;

FIG. 22 is a left side elevation view thereof;

FIG. 23 is a top view thereof;

FIG. 24 is a bottom view thereof;

FIG. 25 is a top, front, and right perspective view thereof showing an alternate position of the embodiment shown in FIG. 17;

FIG. 26 is a bottom, rear, and right perspective view thereof showing an alternate position of the embodiment shown in FIG. 17;

FIG. 27 is a rear elevation view thereof showing an alternate position of the embodiment shown in FIG. 20;

FIG. 28 is front elevation view thereof showing an alternate position of the embodiment shown in FIG. 19;

FIG. 29 is a right side elevation view thereof showing an alternate position of the embodiment shown in FIG. 21;

FIG. 30 is a left side elevation view thereof showing an alternate position of the embodiment shown in FIG. 22;

FIG. 31 is a top view thereof showing an alternate position of the embodiment shown in FIG. 23;

FIG. 32 is a bottom view thereof showing an alternate position of the embodiment shown in FIG. 24;

FIG. 33 is a top, front, and right perspective view of a tampering detection enclosure showing the design according to a third embodiment;

FIG. 34 is a top, rear, and left perspective view of a tampering detection enclosure showing the design according to a third embodiment;

FIG. 35 is a front elevation view thereof;

FIG. 36 is a rear elevation view thereof;

FIG. 37 is a right side elevation view thereof;

FIG. 38 is a left side elevation view thereof;

FIG. 39 is a top view thereof;

FIG. 40 is a bottom view thereof;

FIG. 41 is a top, front, and right perspective view thereof showing an alternate position of the embodiment shown in FIG. 33;

FIG. 42 is a bottom, rear, and right perspective view thereof showing an alternate position of the embodiment shown in FIG. 33;

FIG. 43 is a rear elevation view thereof showing an alternate position of the embodiment shown in FIG. 35;

FIG. 44 is front elevation view thereof showing an alternate position of the embodiment shown in FIG. 36;

FIG. 45 is a right side elevation view thereof showing an alternate position of the embodiment shown in FIG. 37;

FIG. 46 is a left side elevation view thereof showing an alternate position of the embodiment shown in FIG. 38;

FIG. 47 is a top view thereof showing an alternate position of the embodiment shown in FIG. 39; and,

FIG. 48 is a bottom view thereof showing an alternate position of the embodiment shown in FIG. 40.

The dashed broken lines are for illustrative purpose only and form no part of the claimed design.

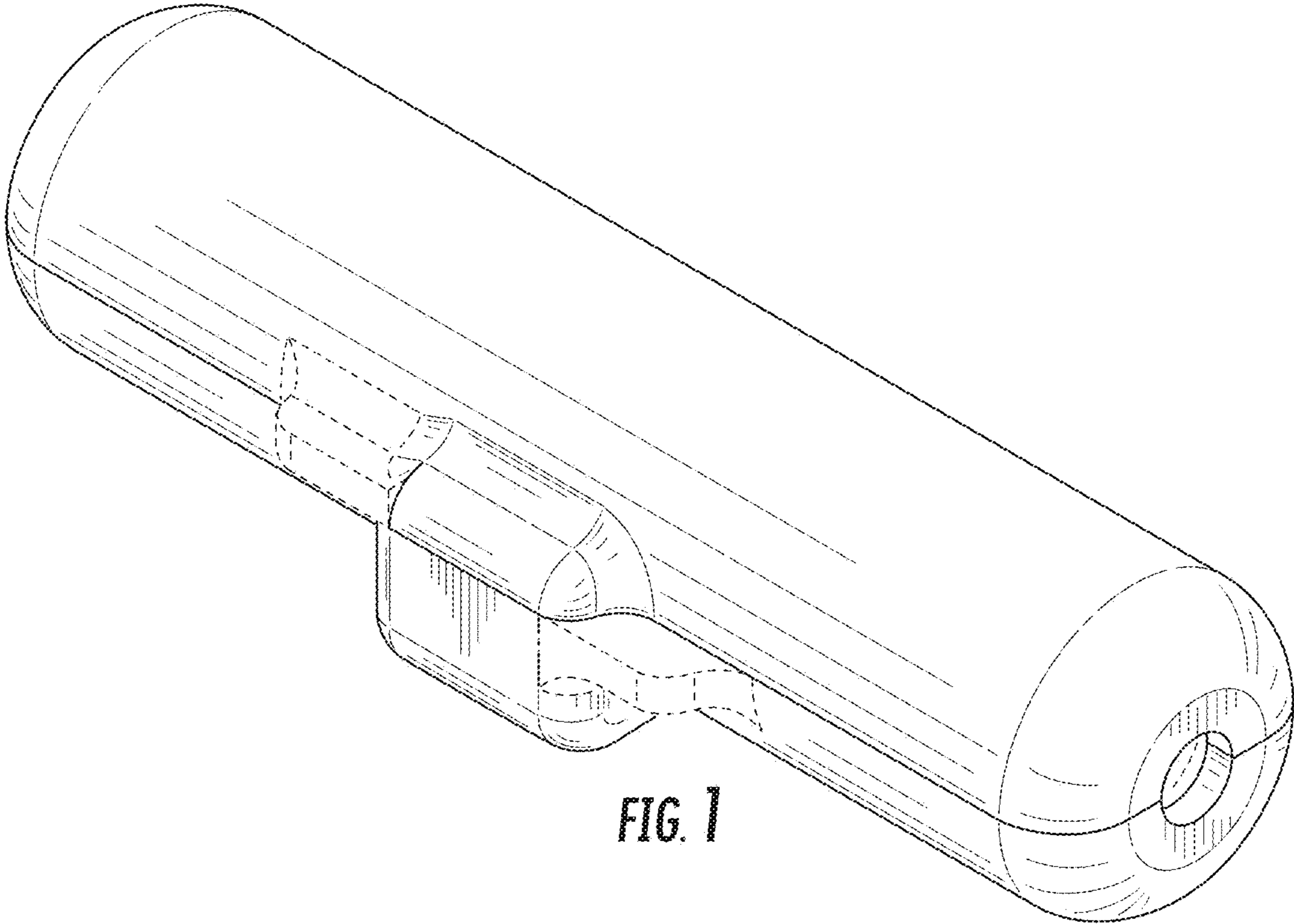


FIG. 1

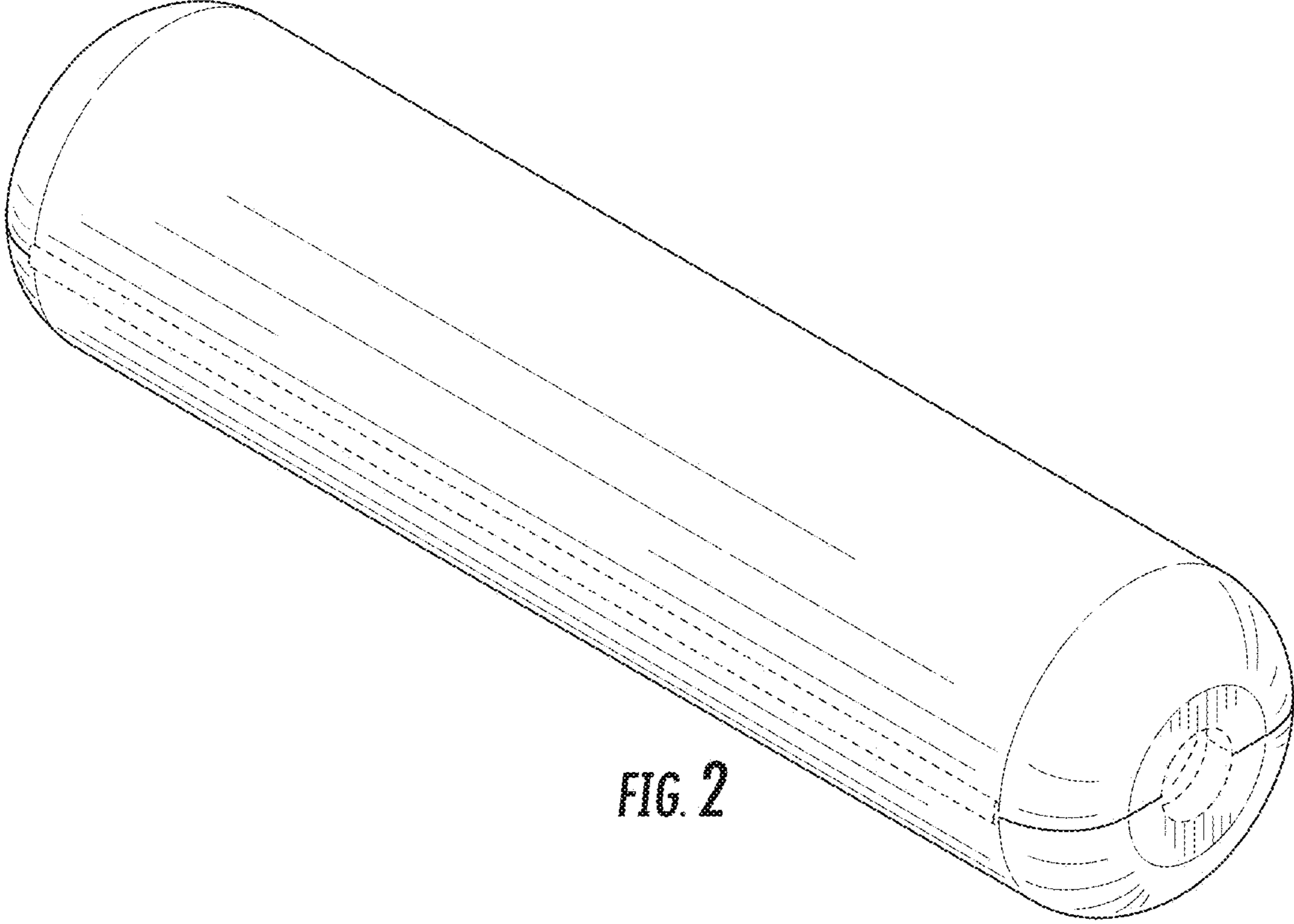


FIG. 2

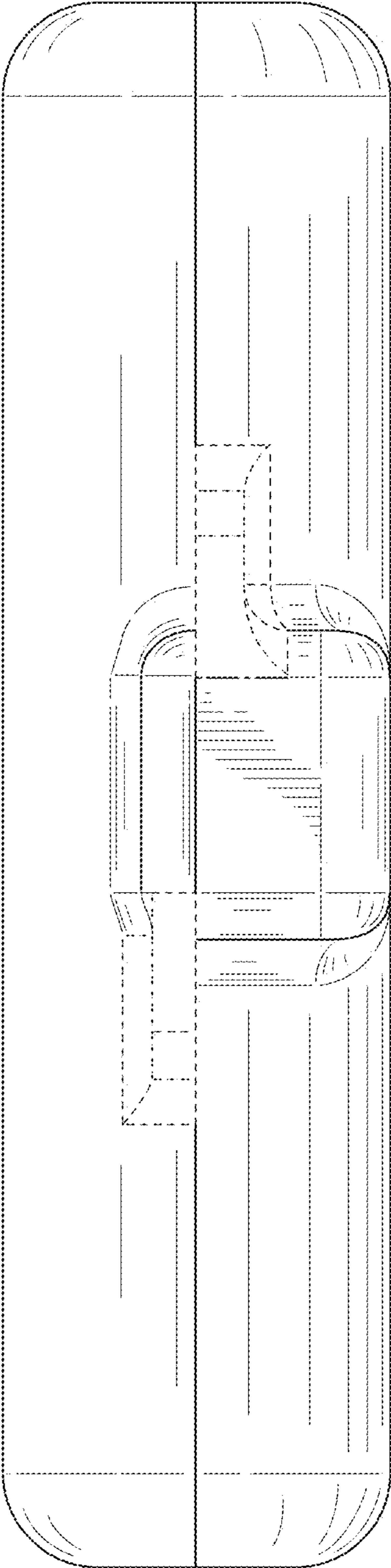


FIG. 3

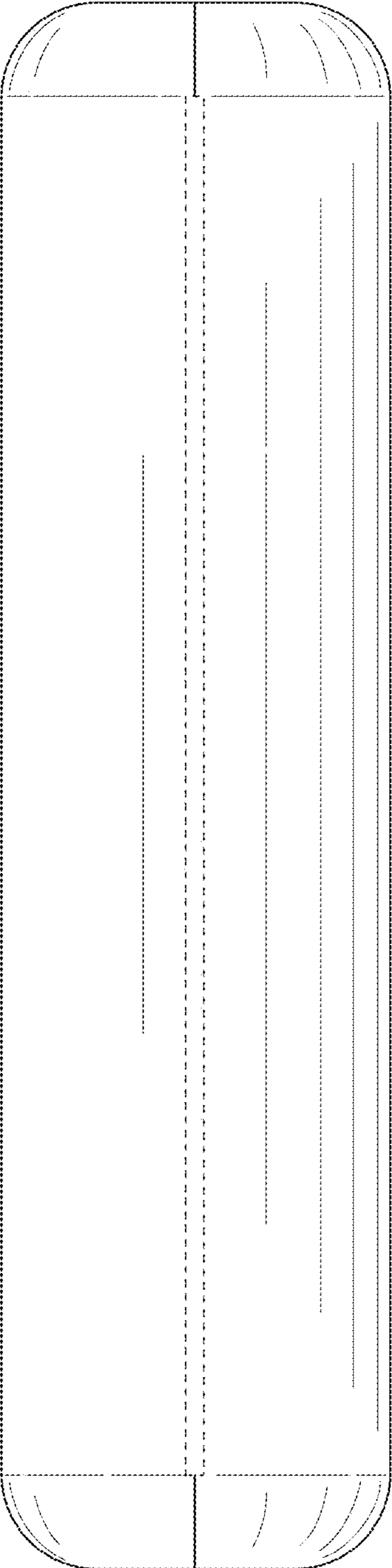


FIG. 4

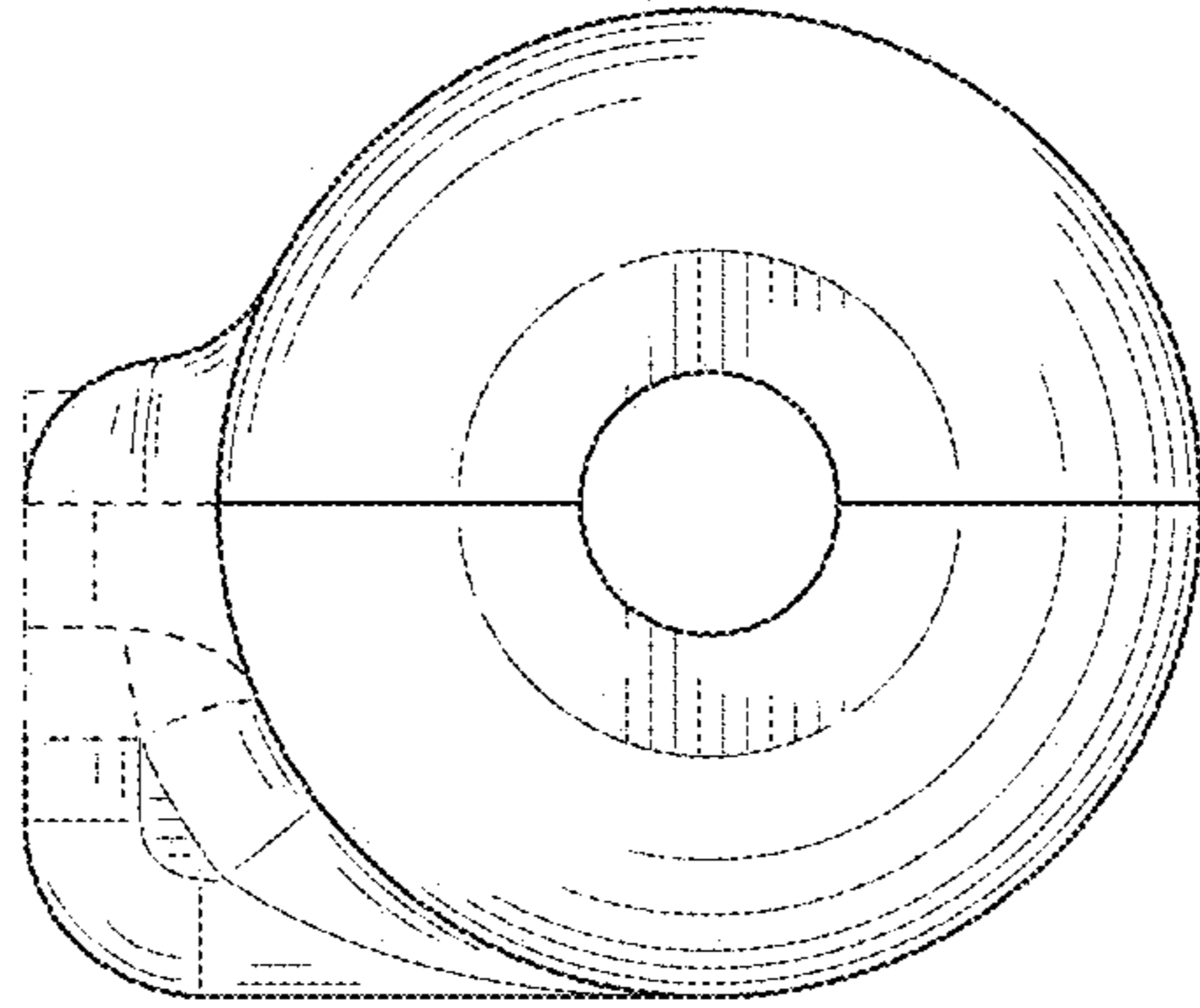


FIG. 5

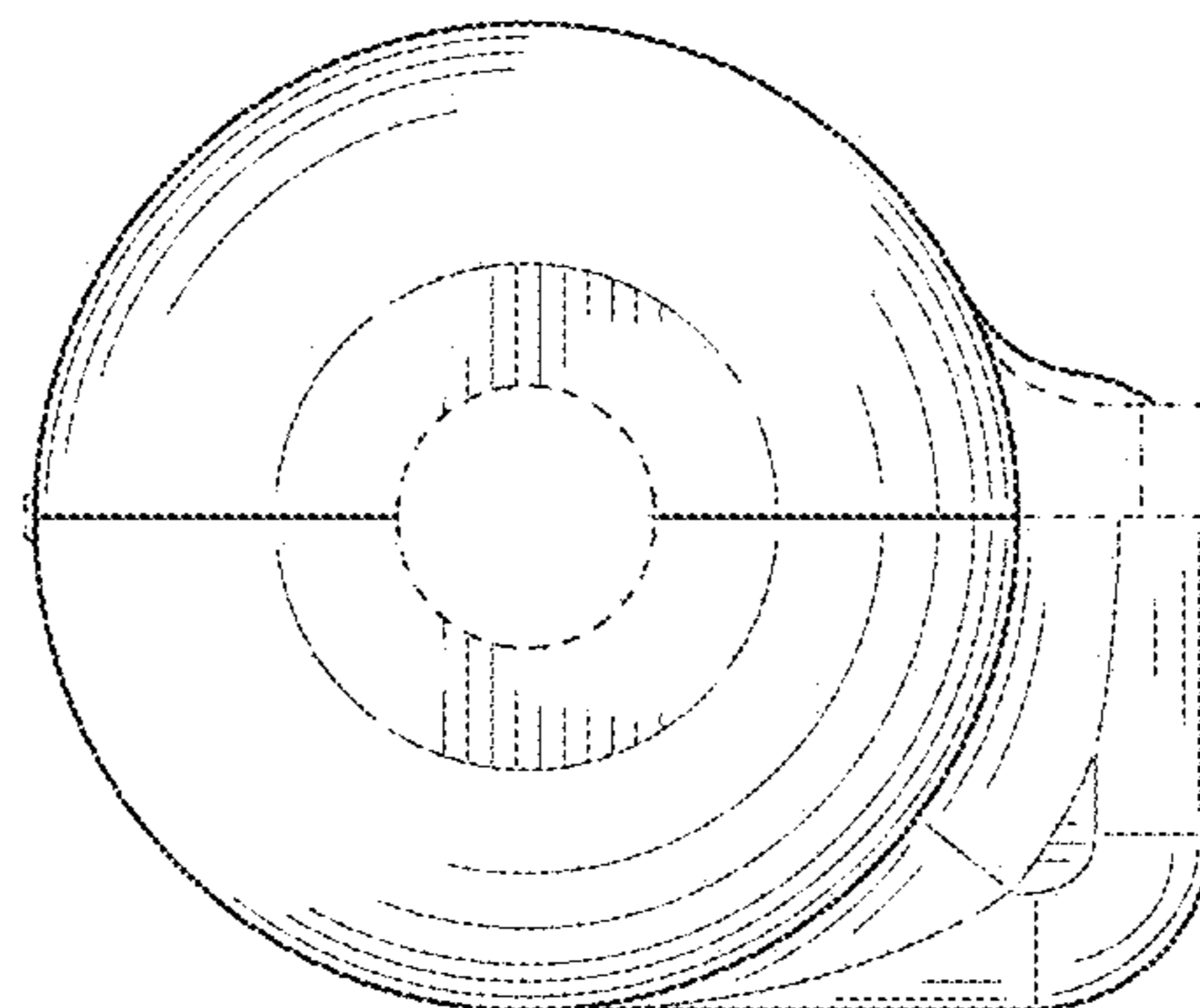


FIG. 6

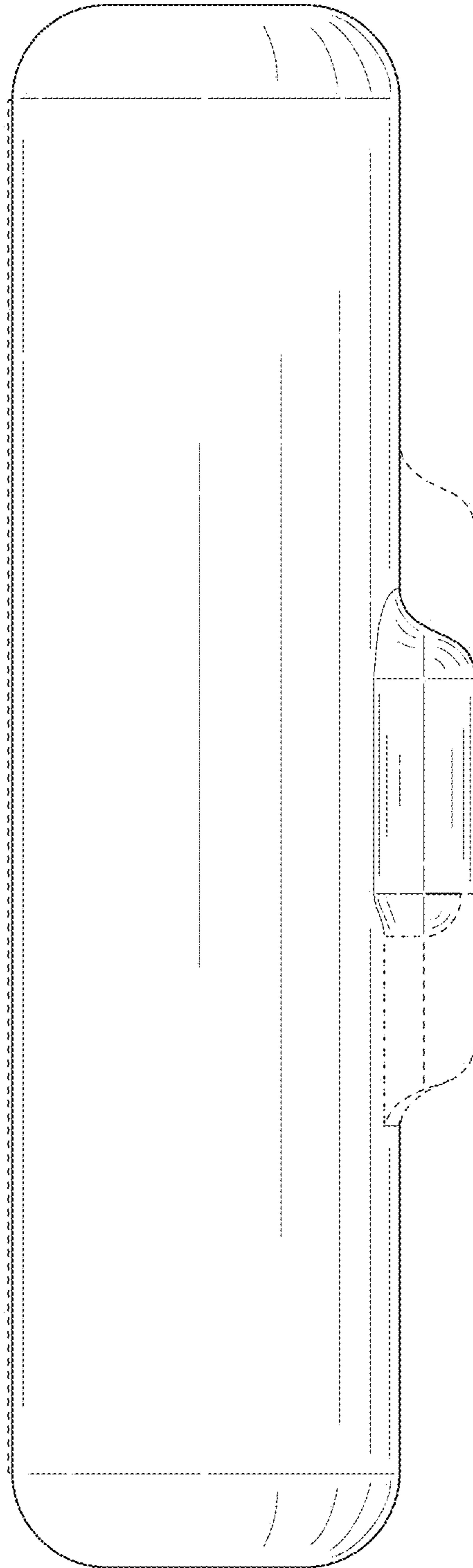


FIG. 7

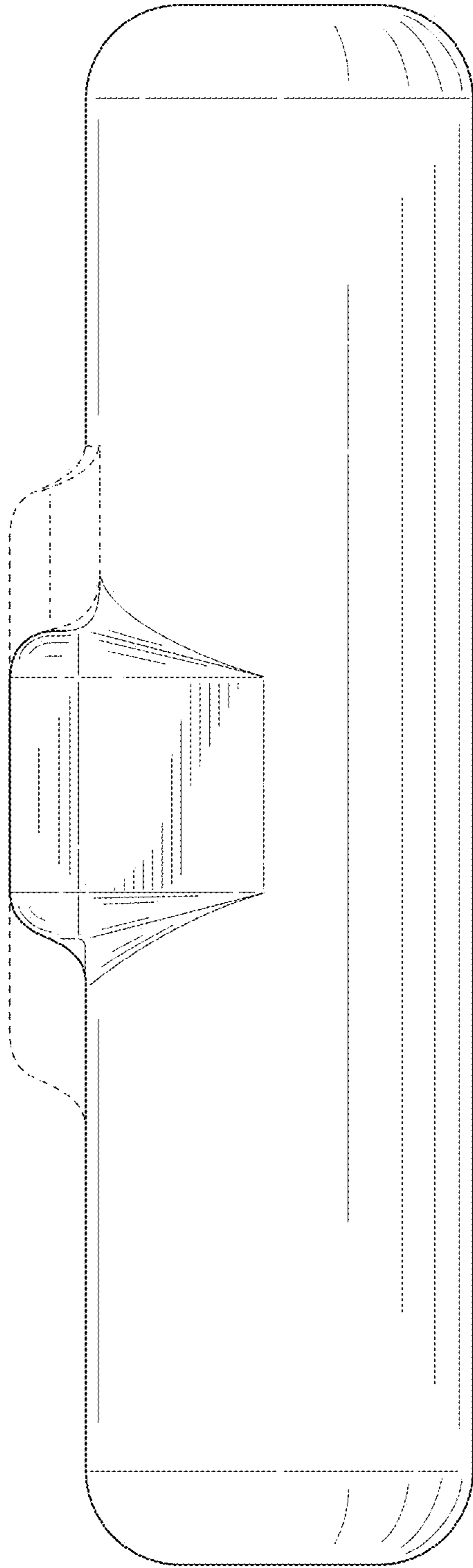


FIG. 8

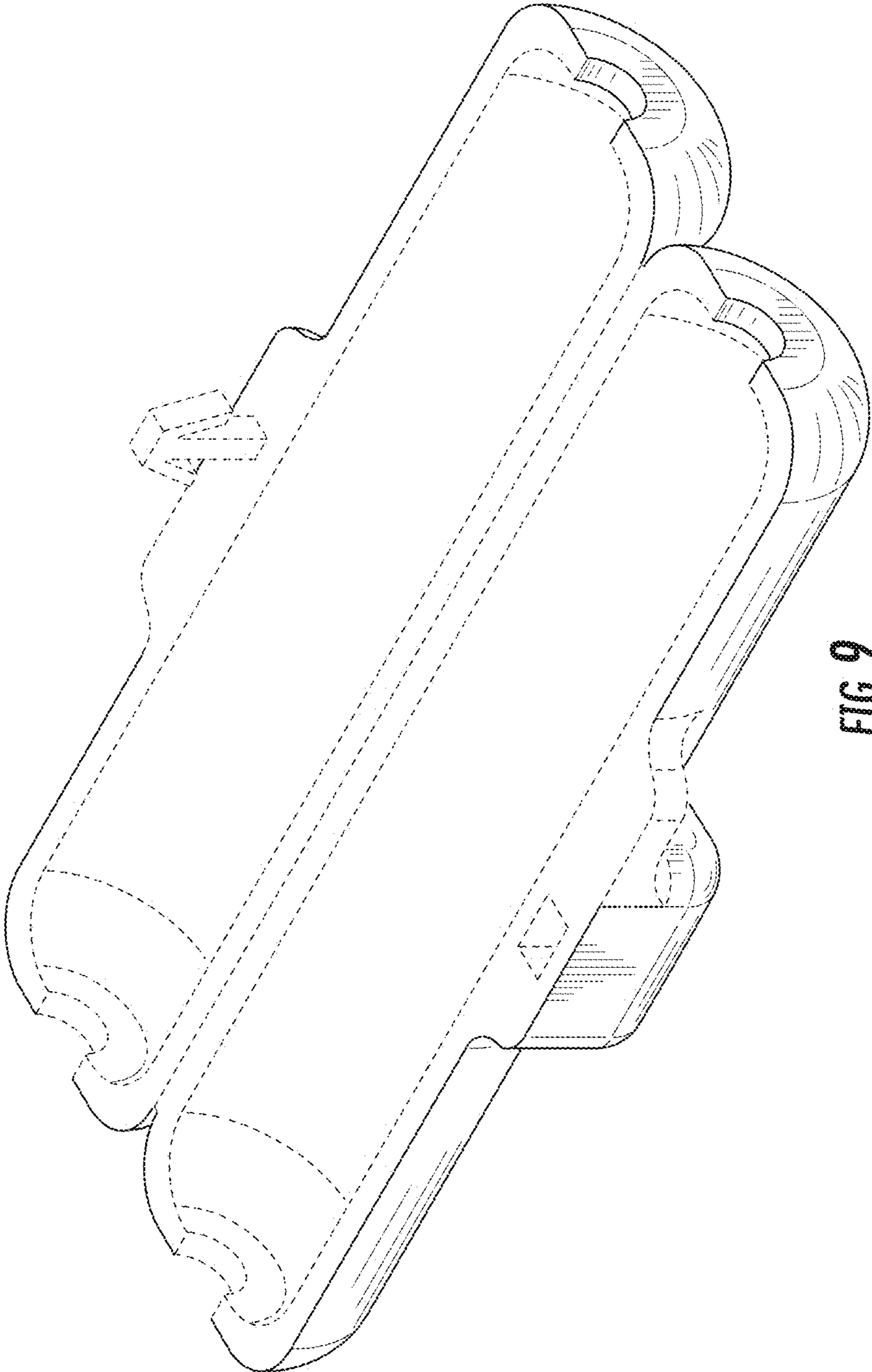


FIG. 9

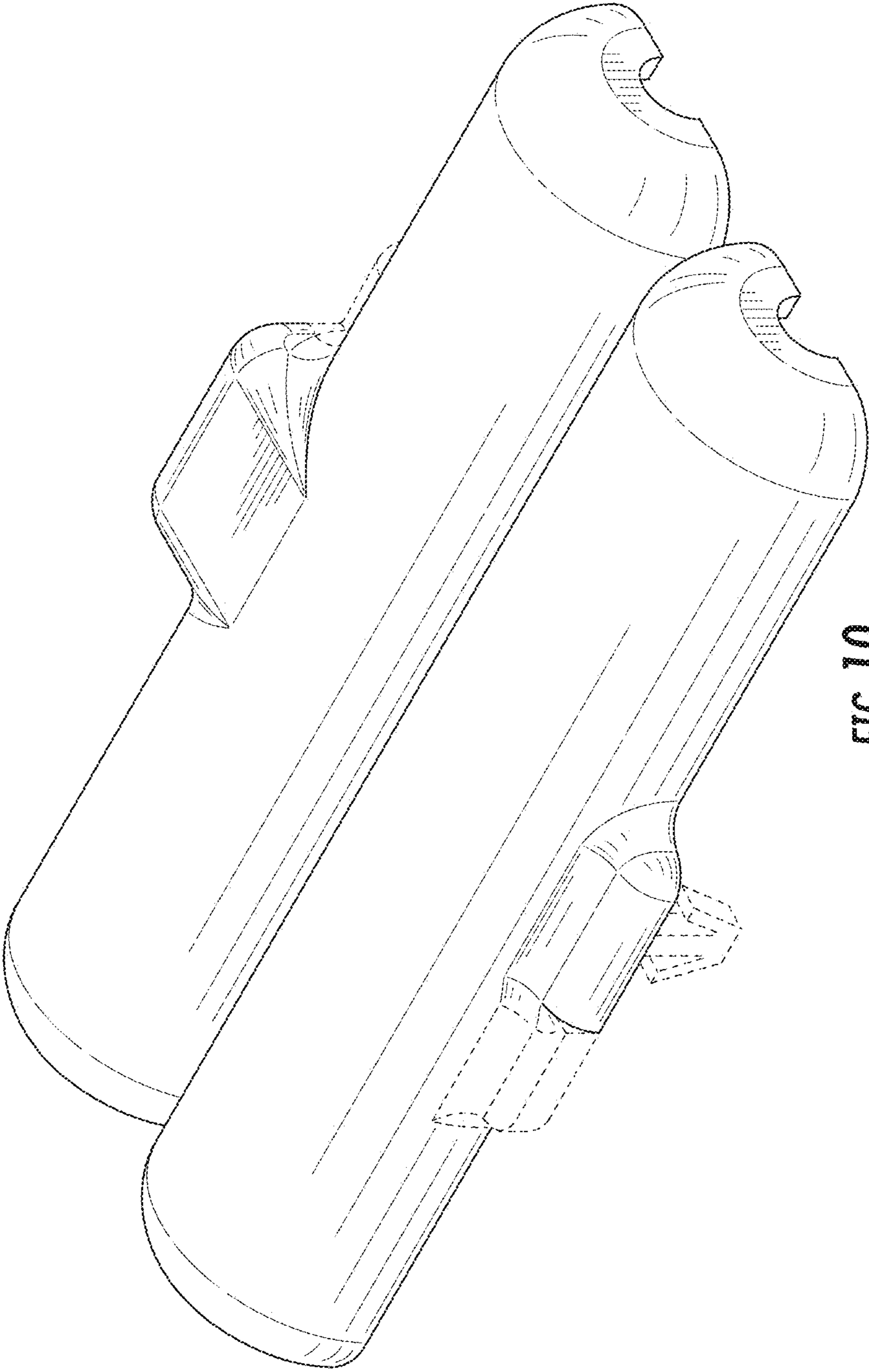


FIG. 10

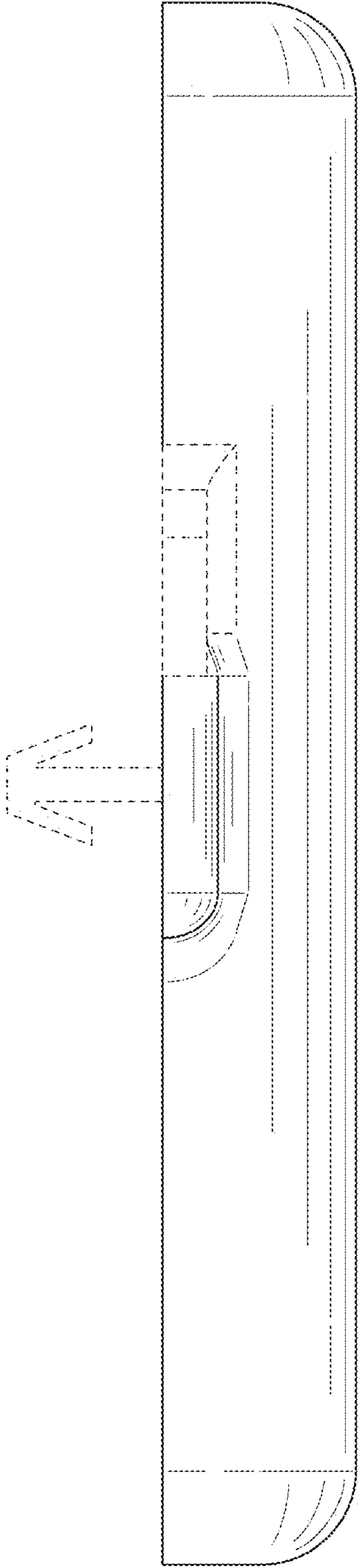


FIG. 11

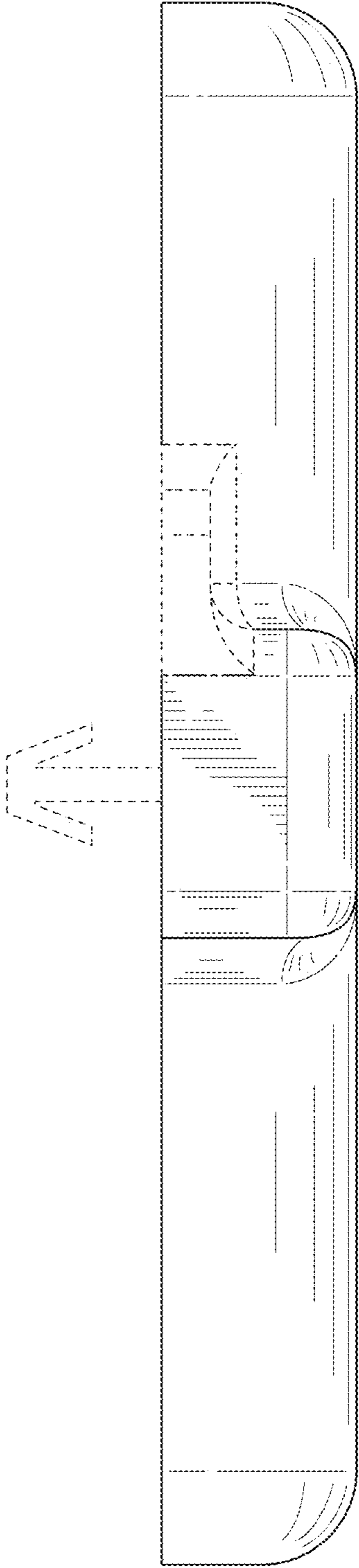


FIG. 12

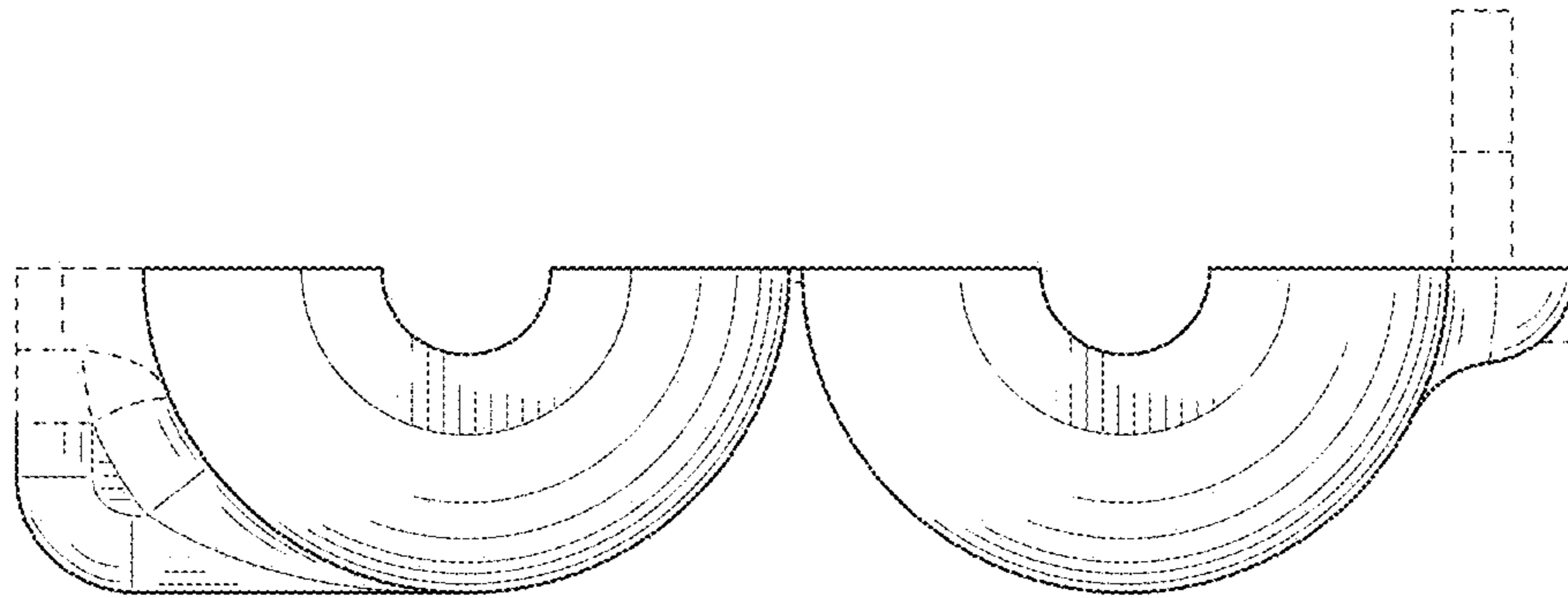


FIG. 13

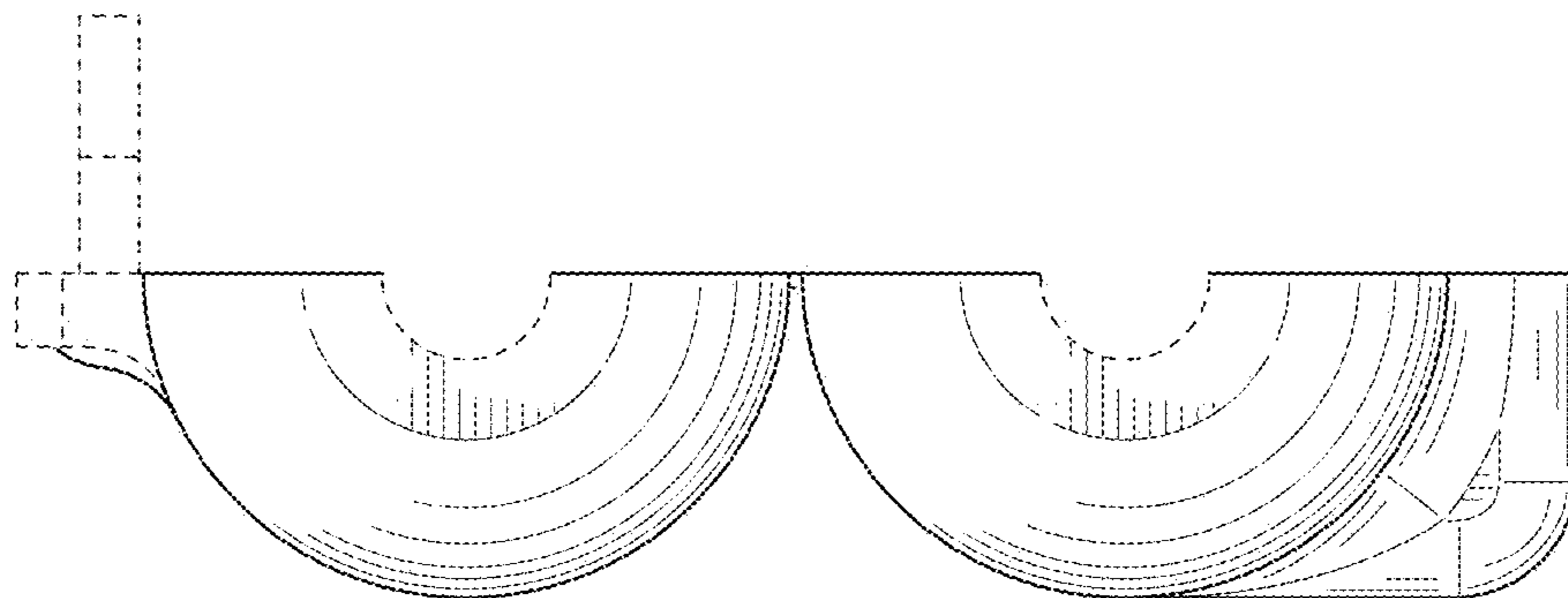


FIG. 14

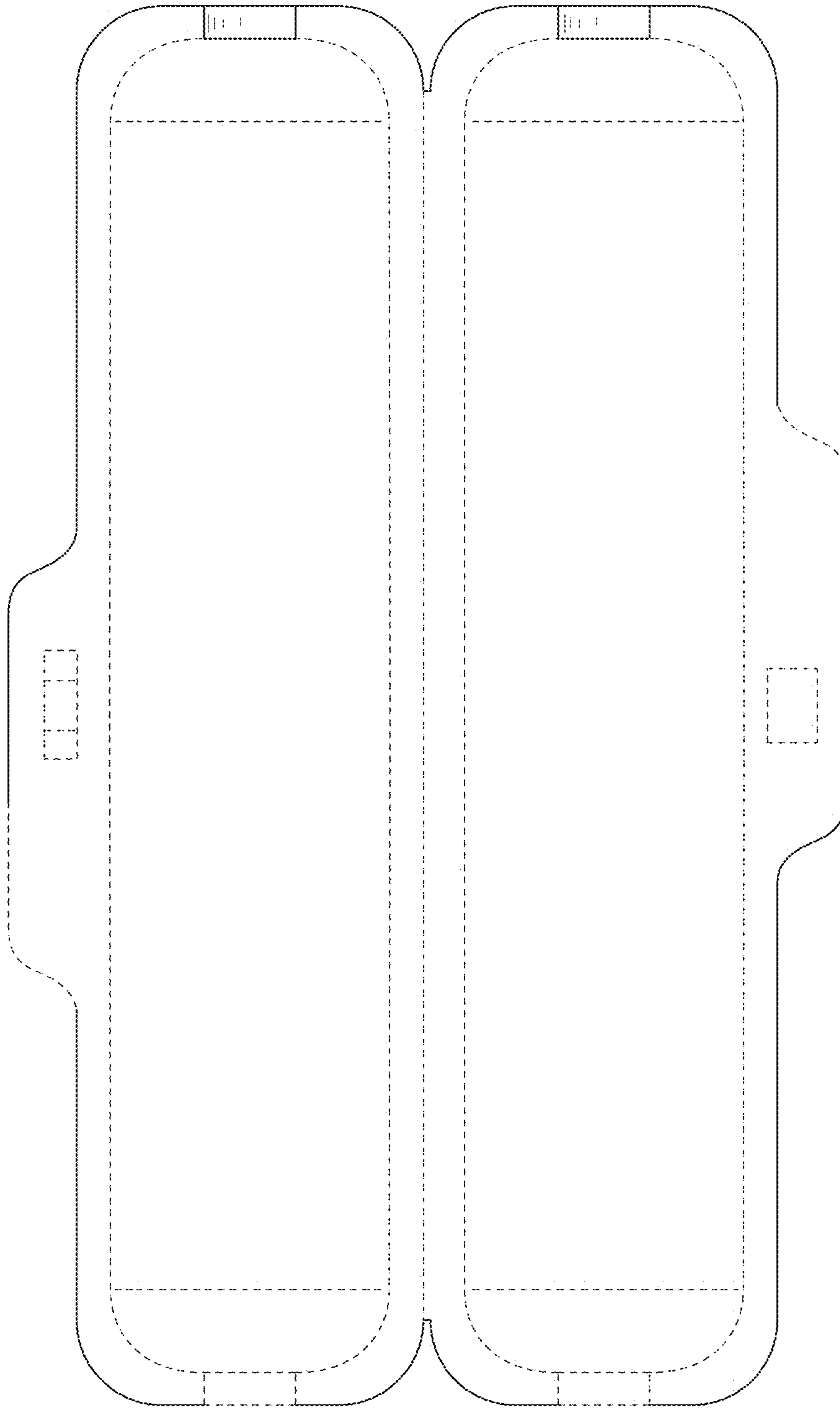


FIG. 15

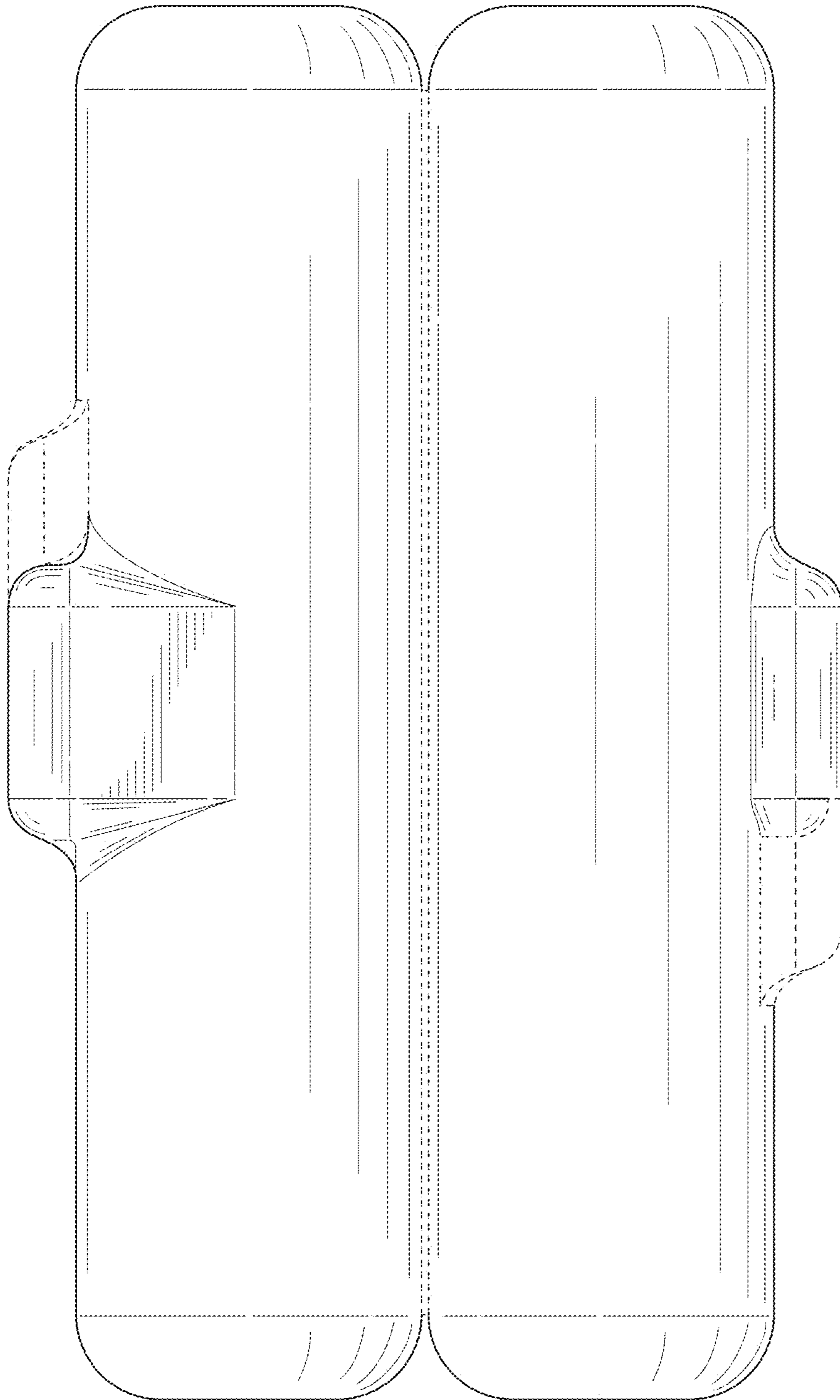
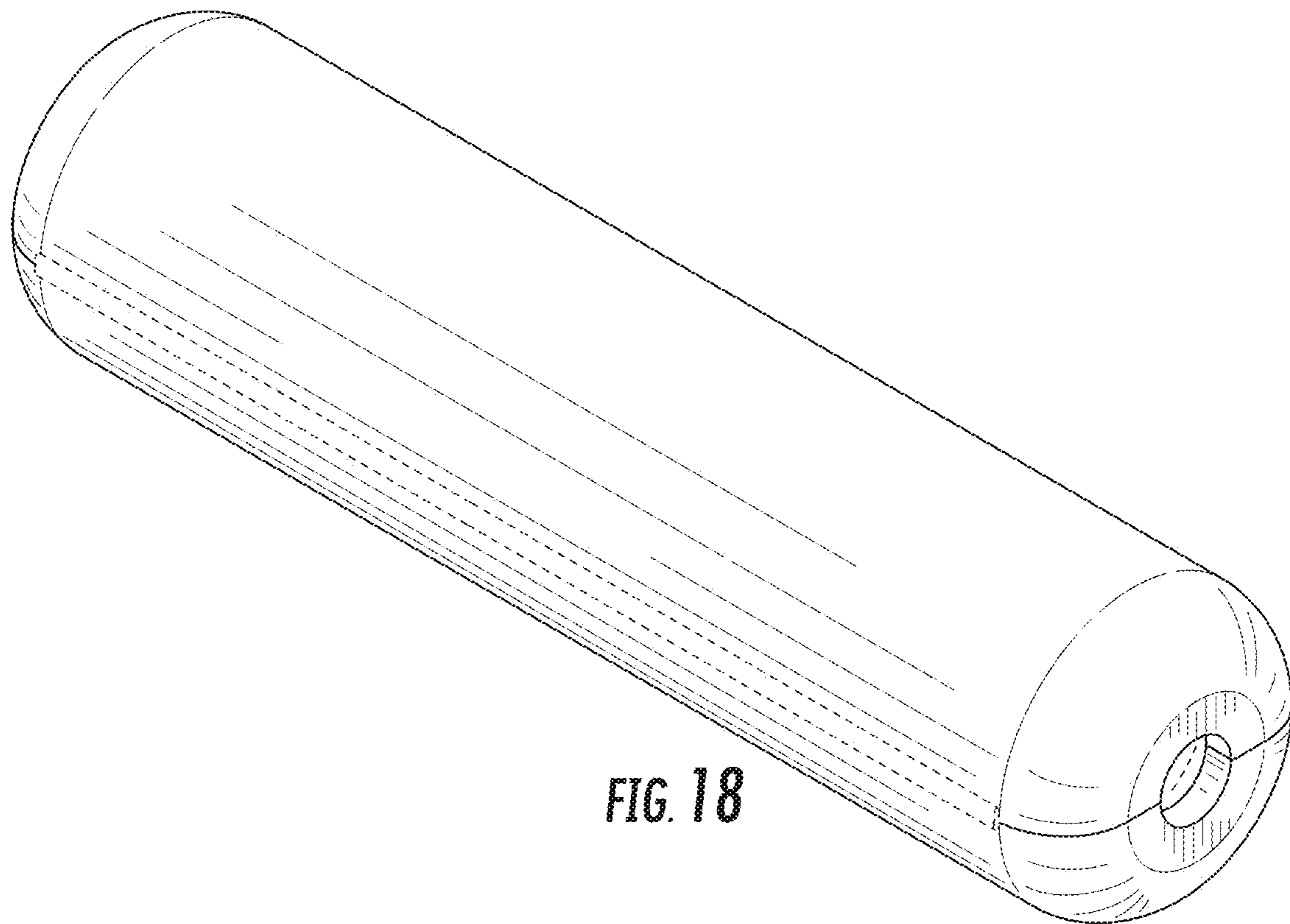
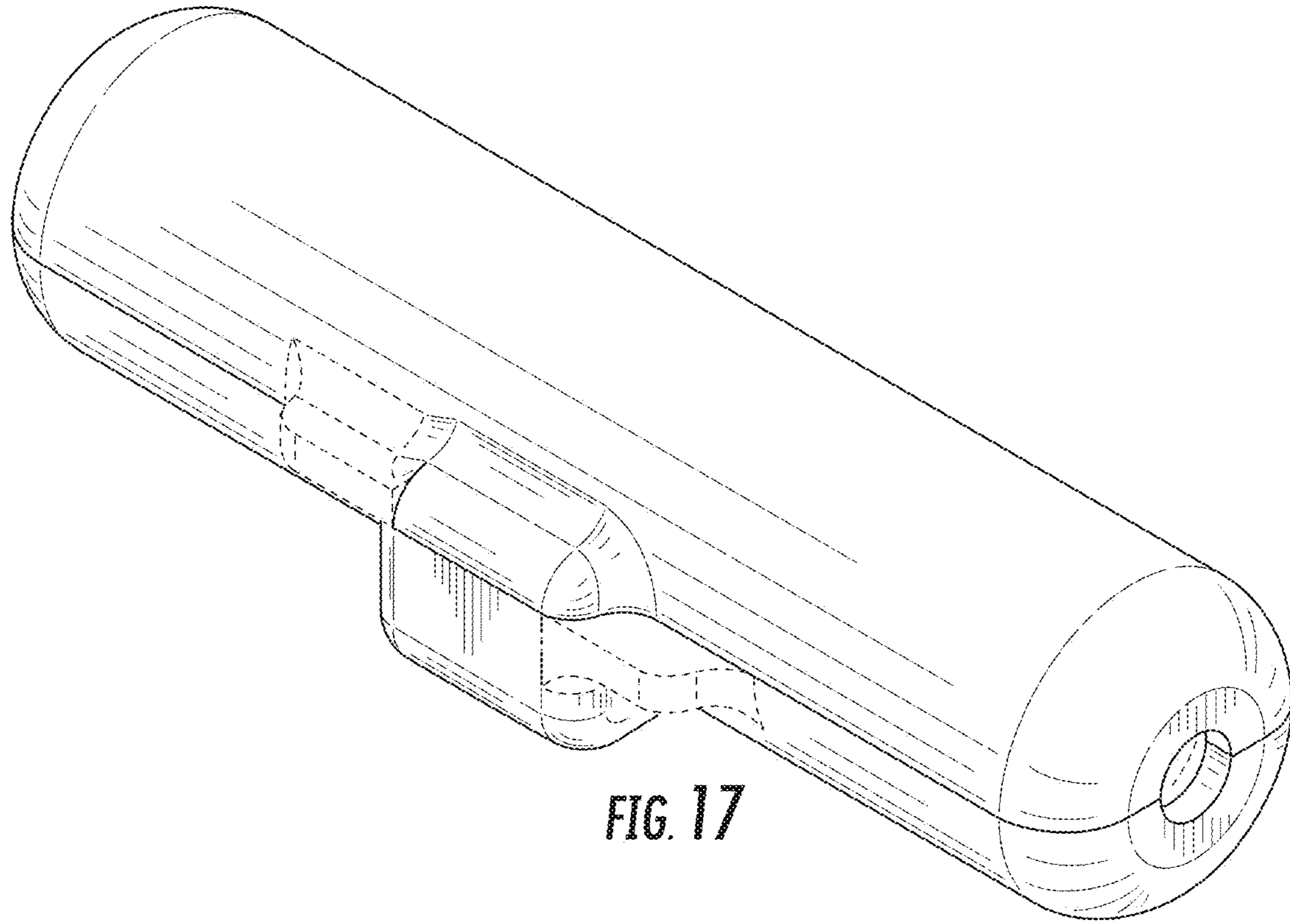


FIG. 16



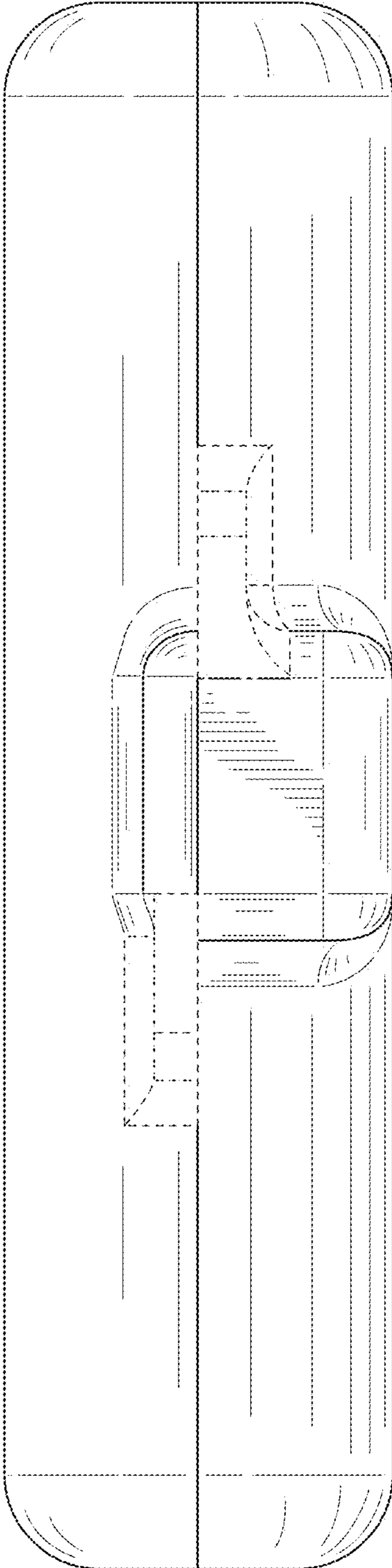


FIG. 19

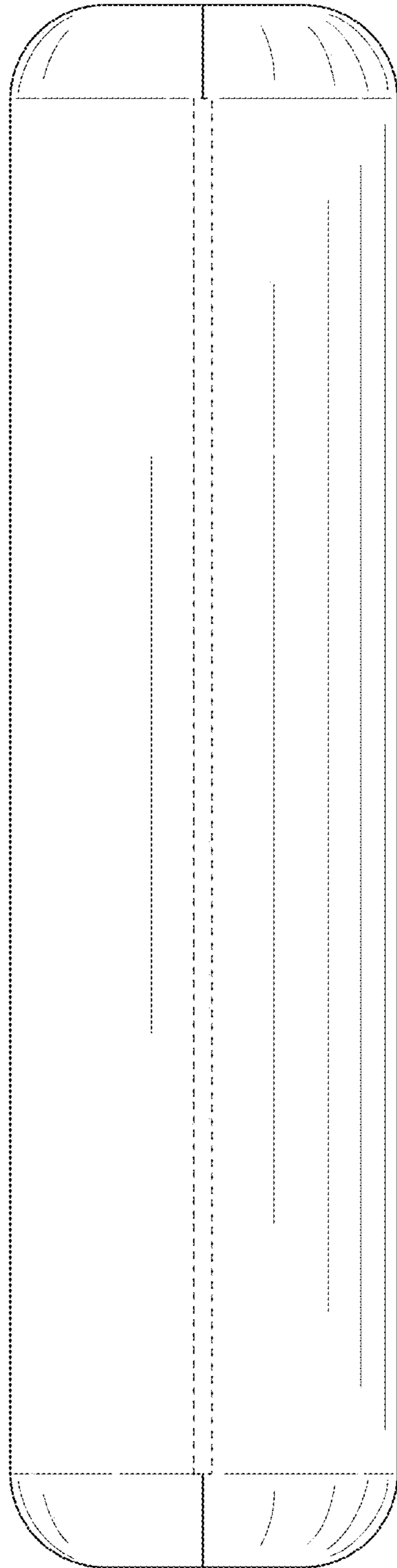


FIG. 20

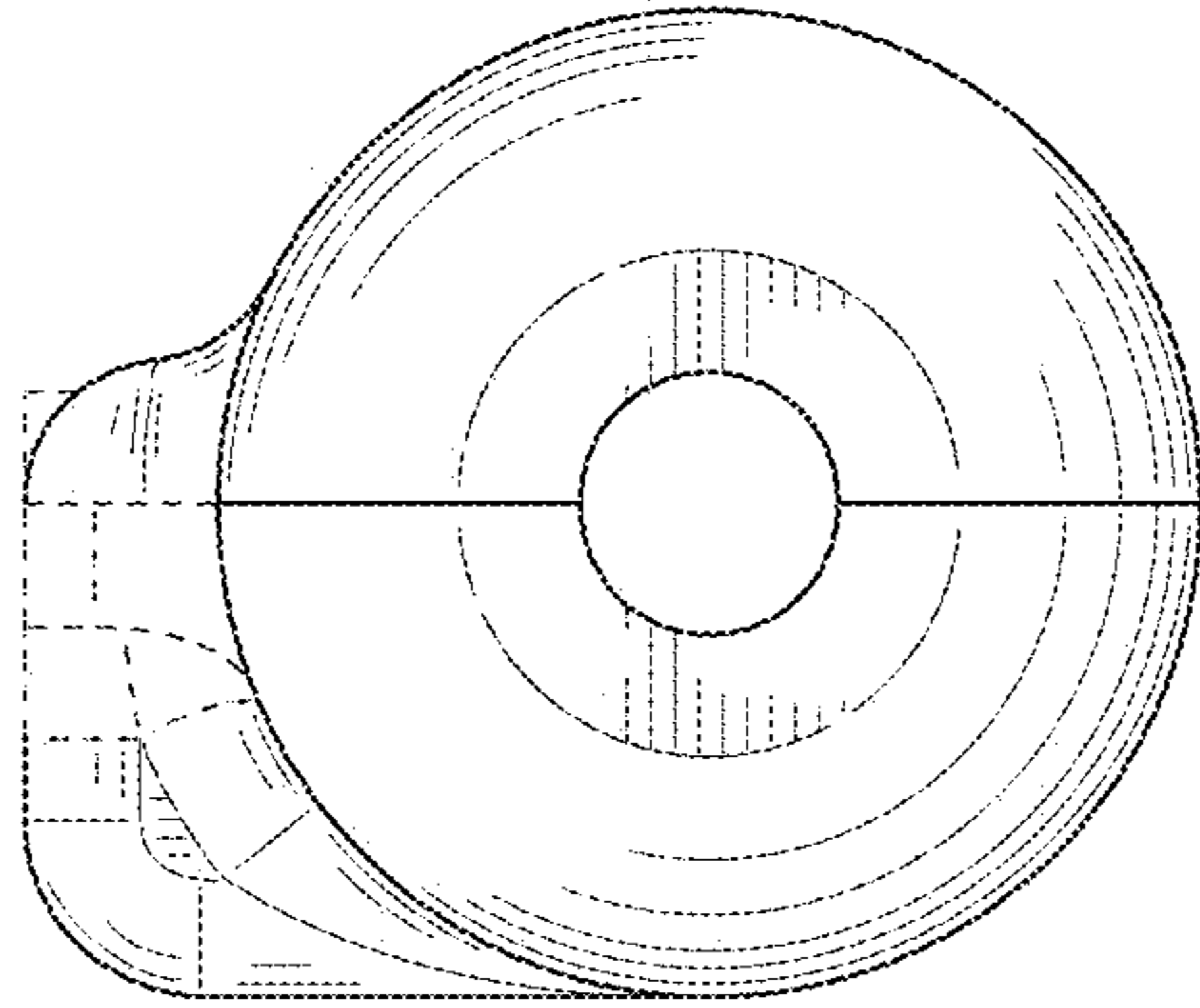


FIG. 21

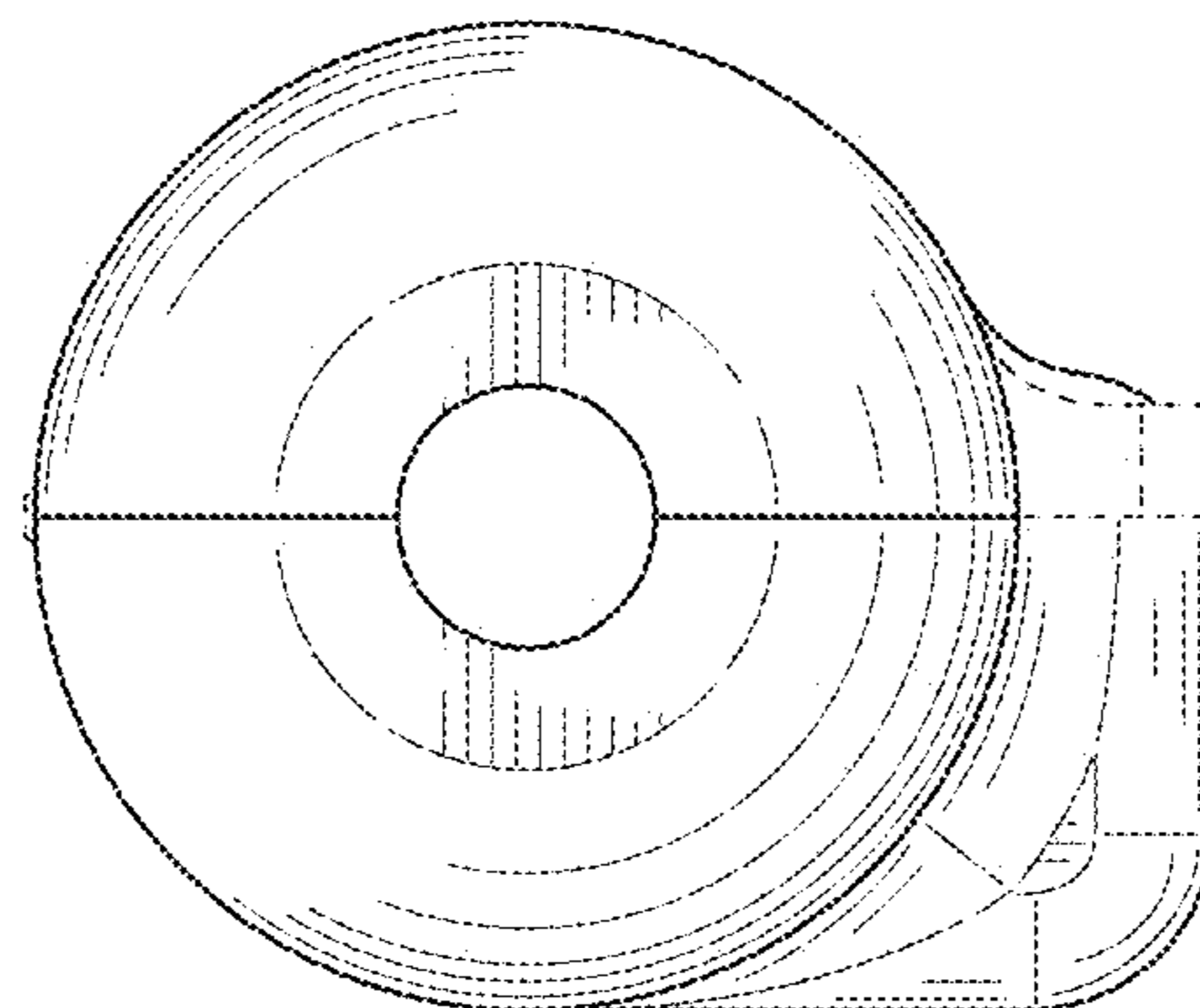


FIG. 22

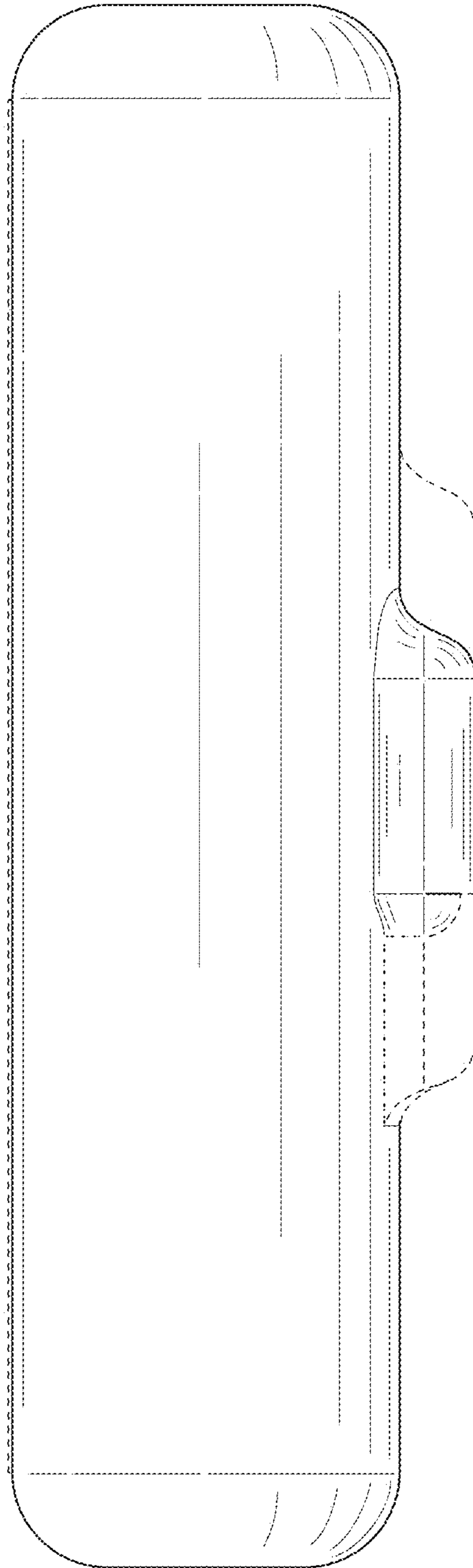


FIG. 23

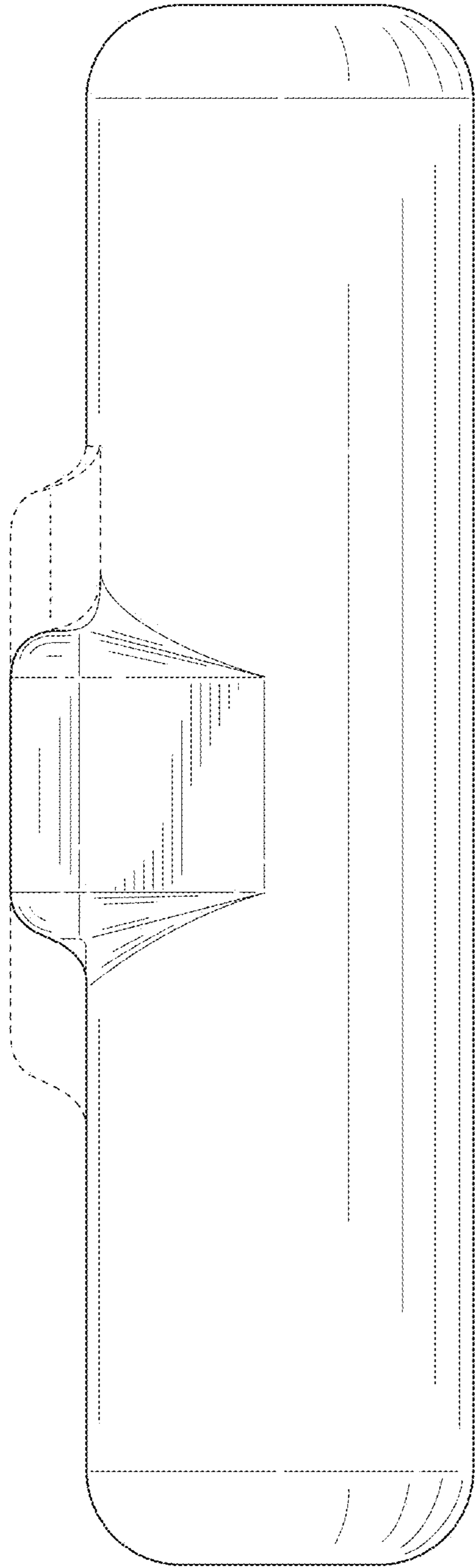


FIG. 24

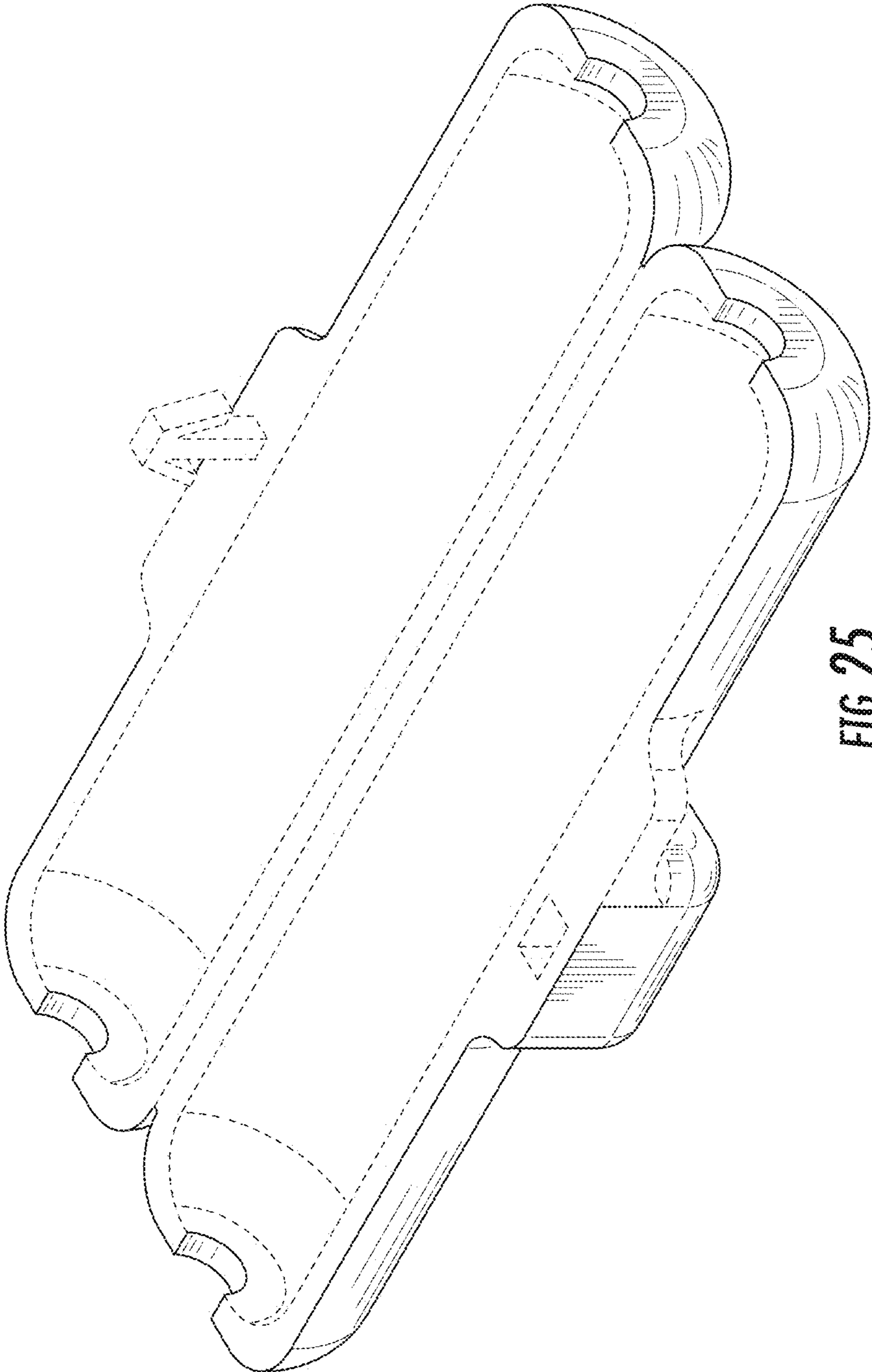


FIG. 25

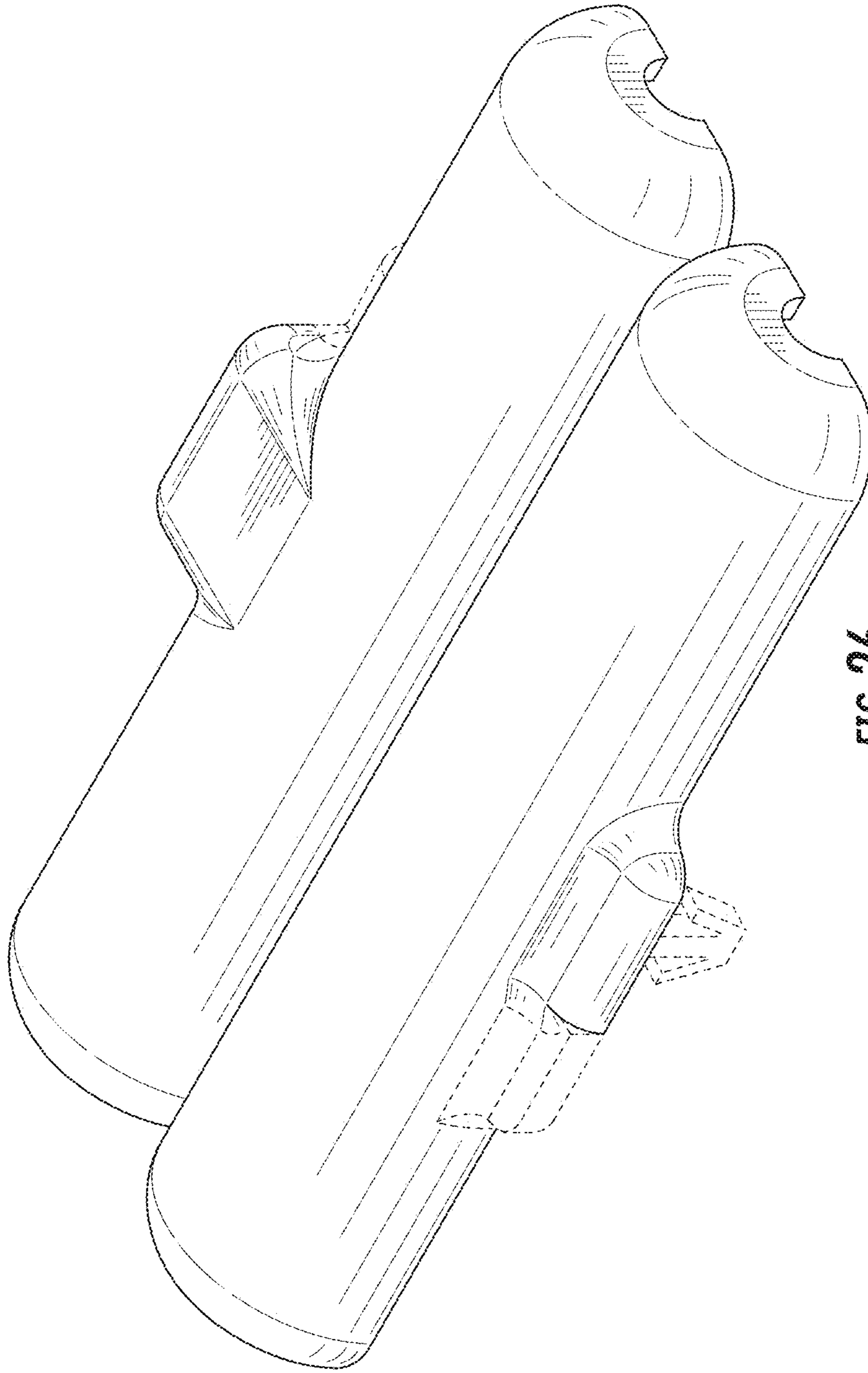


FIG. 26

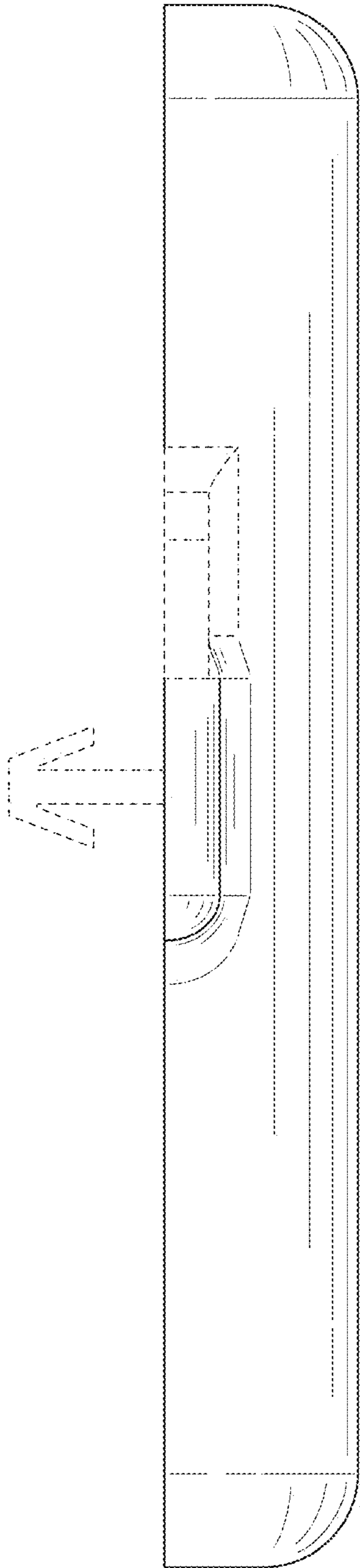


FIG. 27

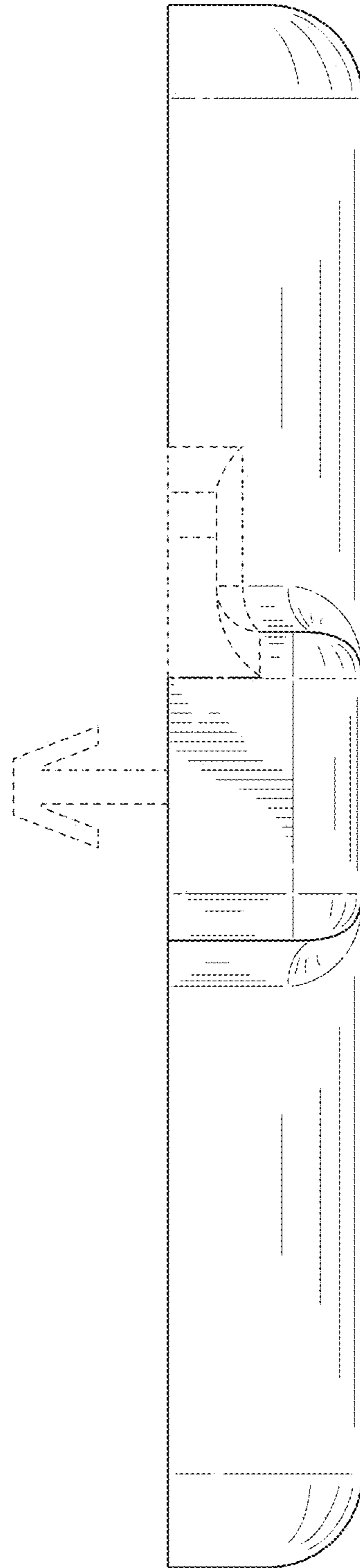


FIG. 28

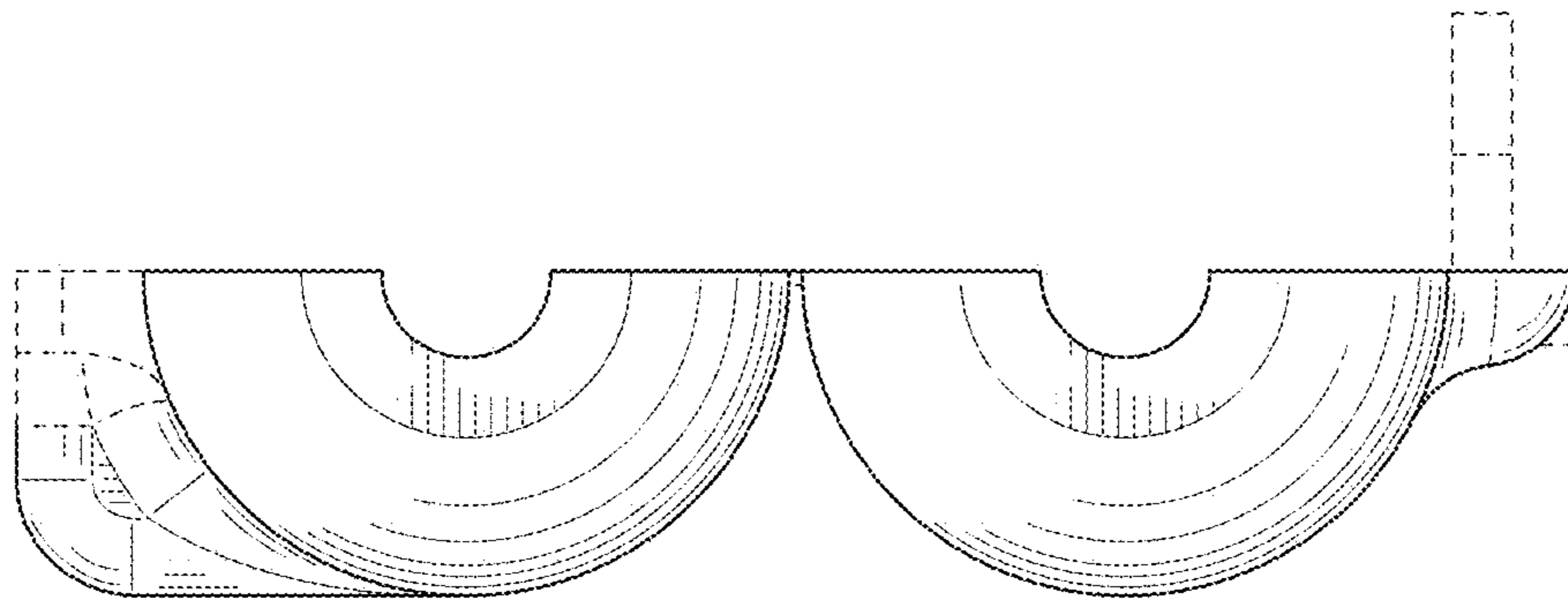


FIG. 29

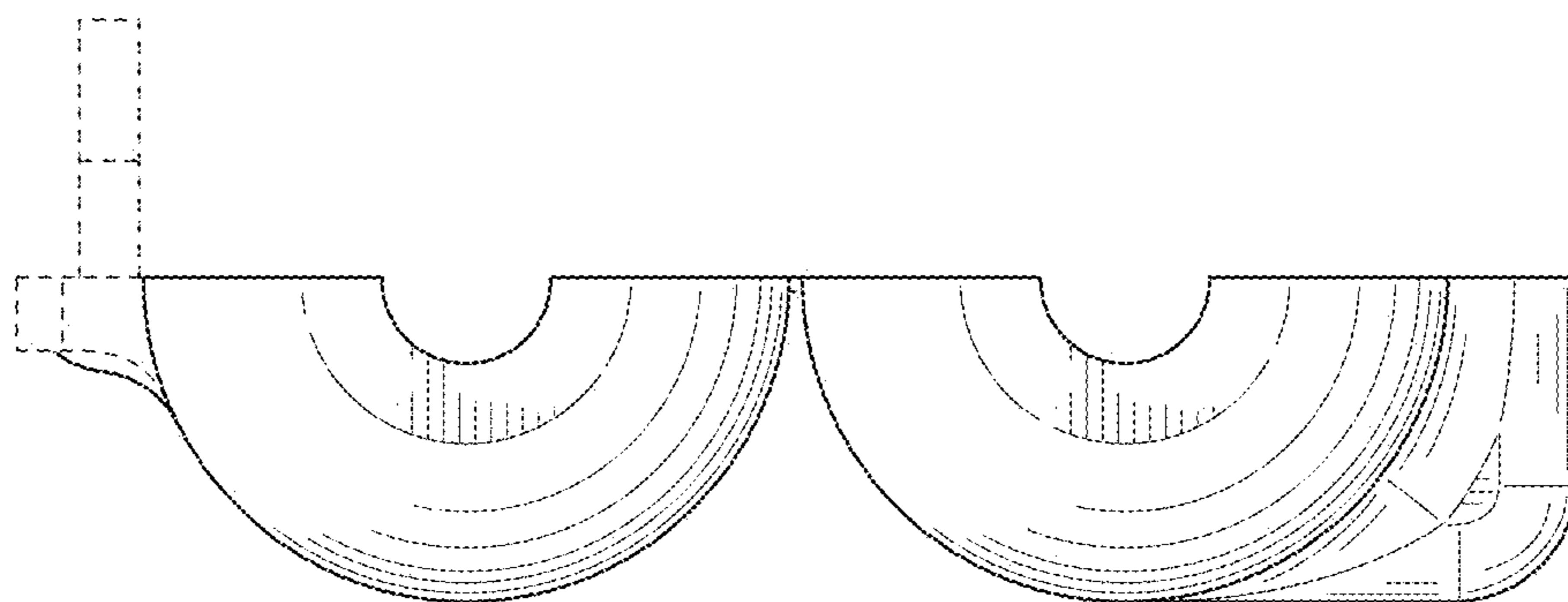


FIG. 30

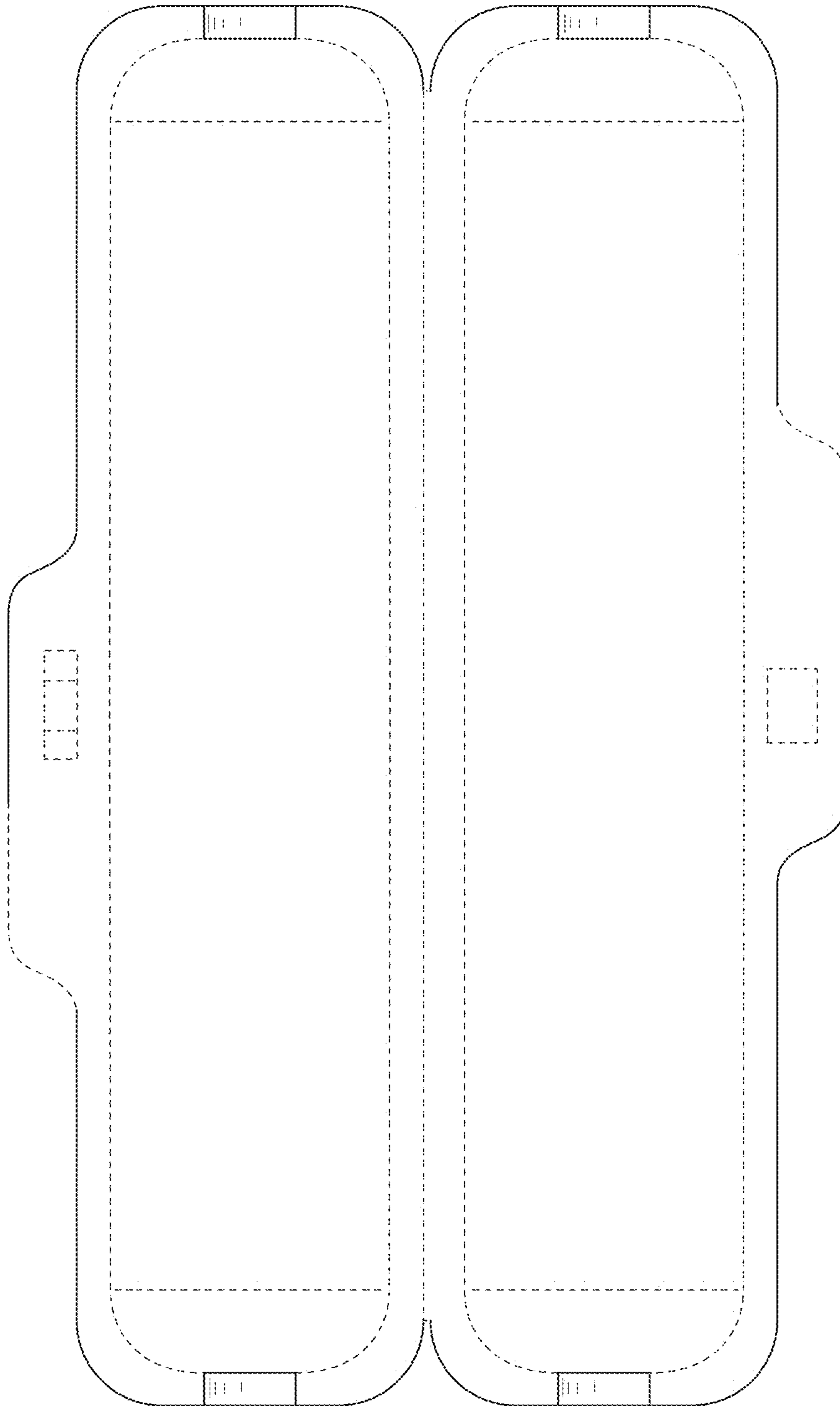


FIG. 31

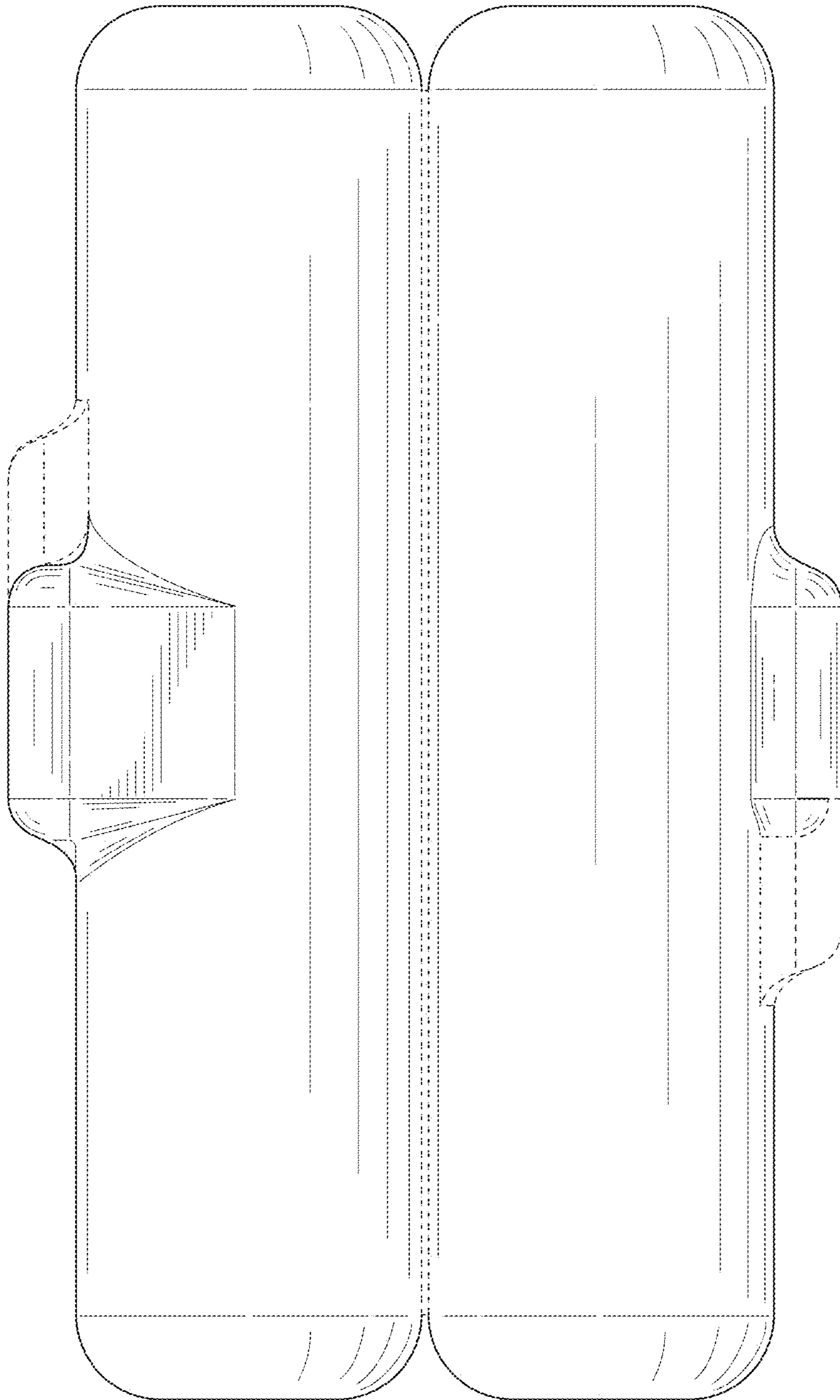
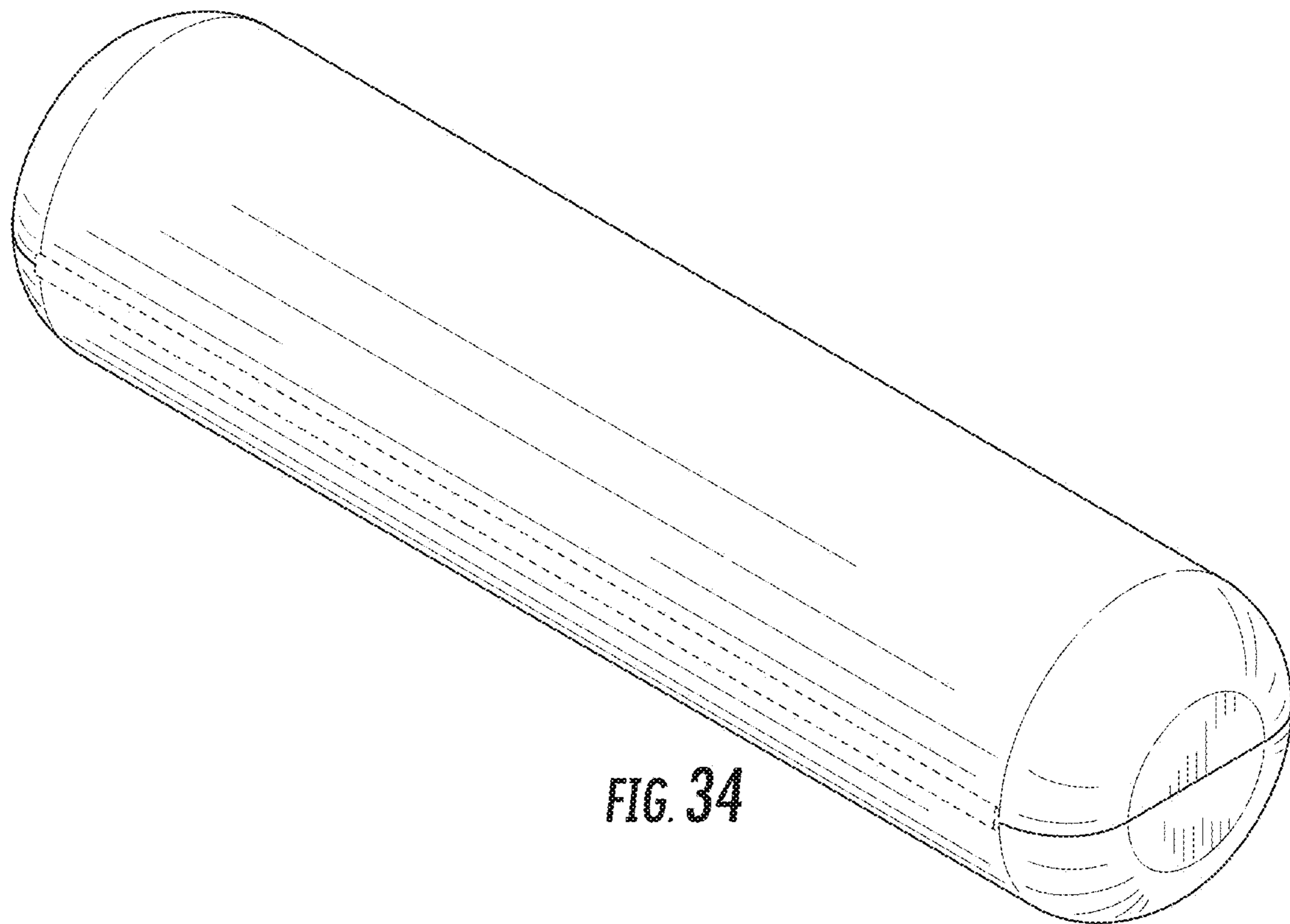
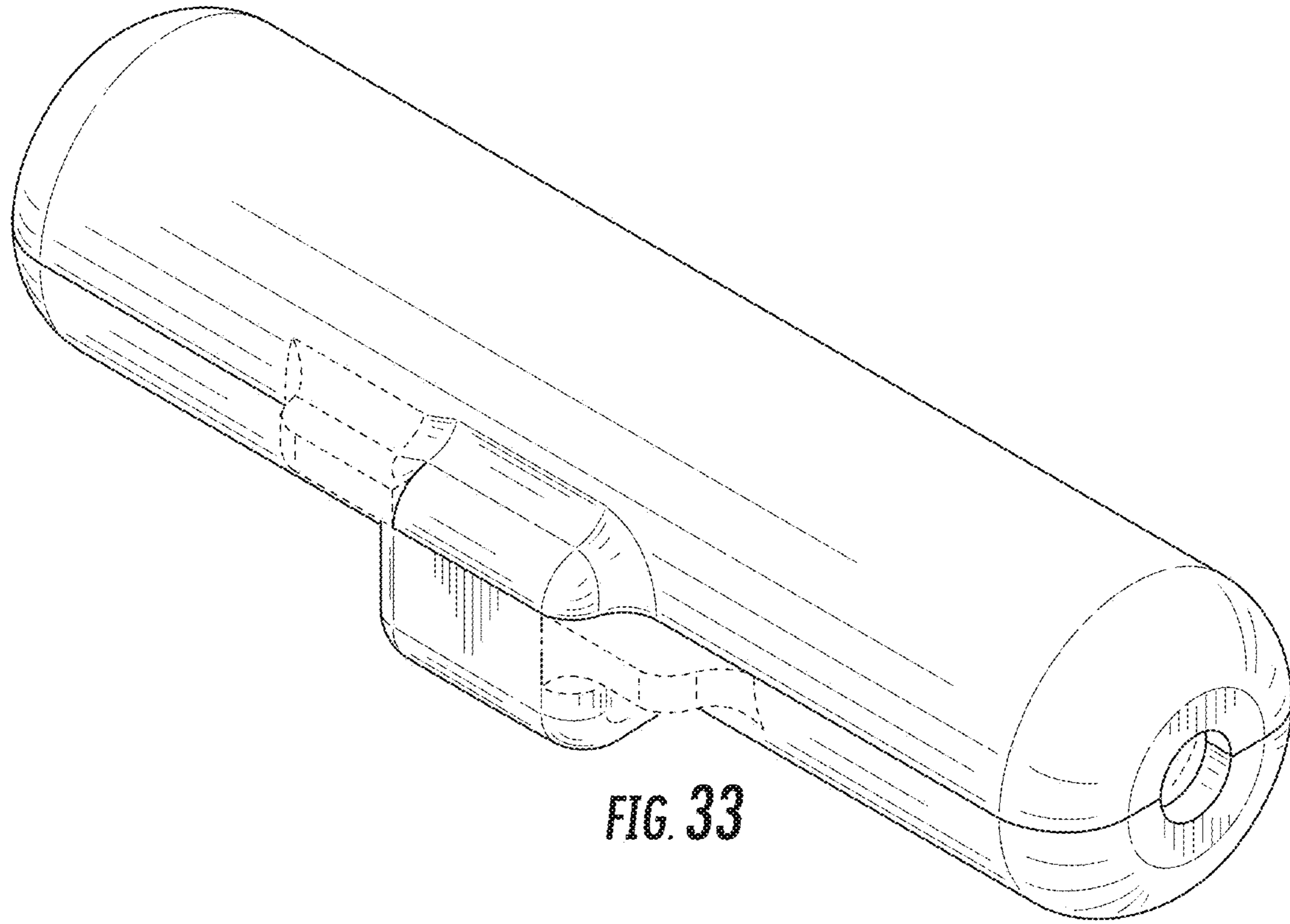


FIG. 32



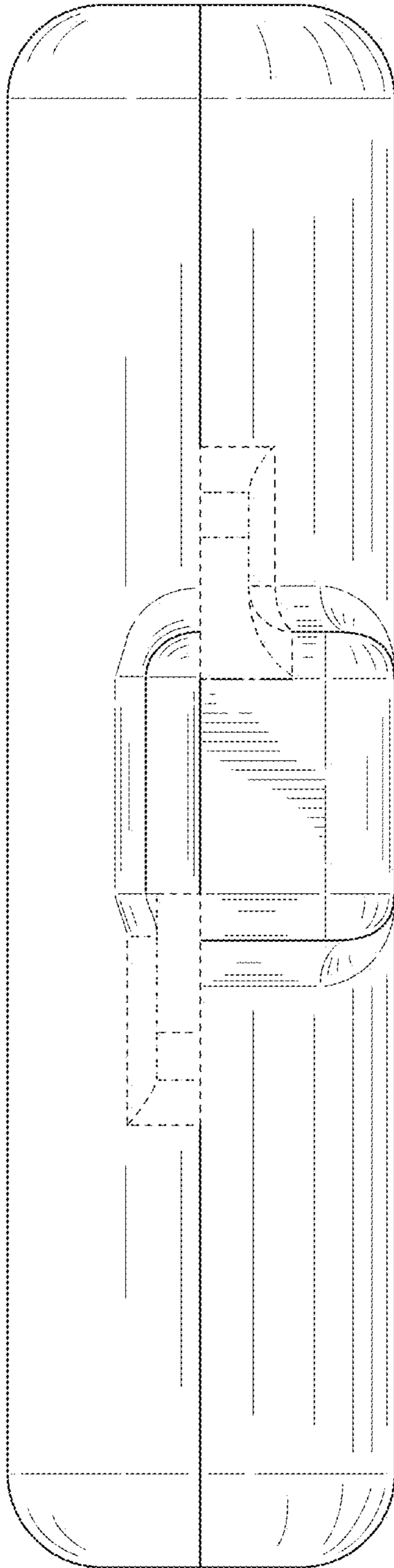


FIG. 35

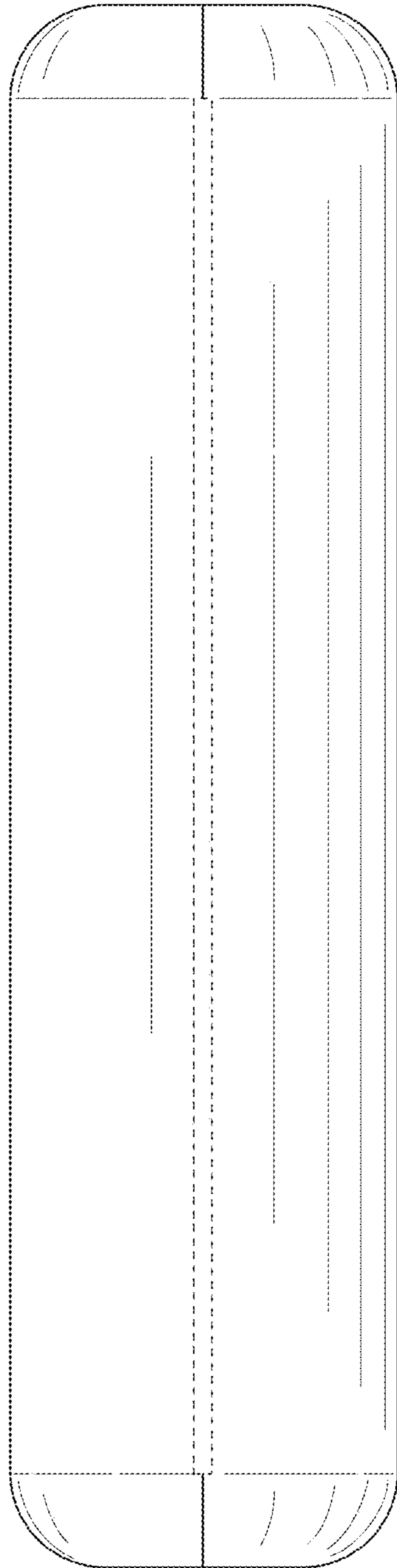


FIG. 36

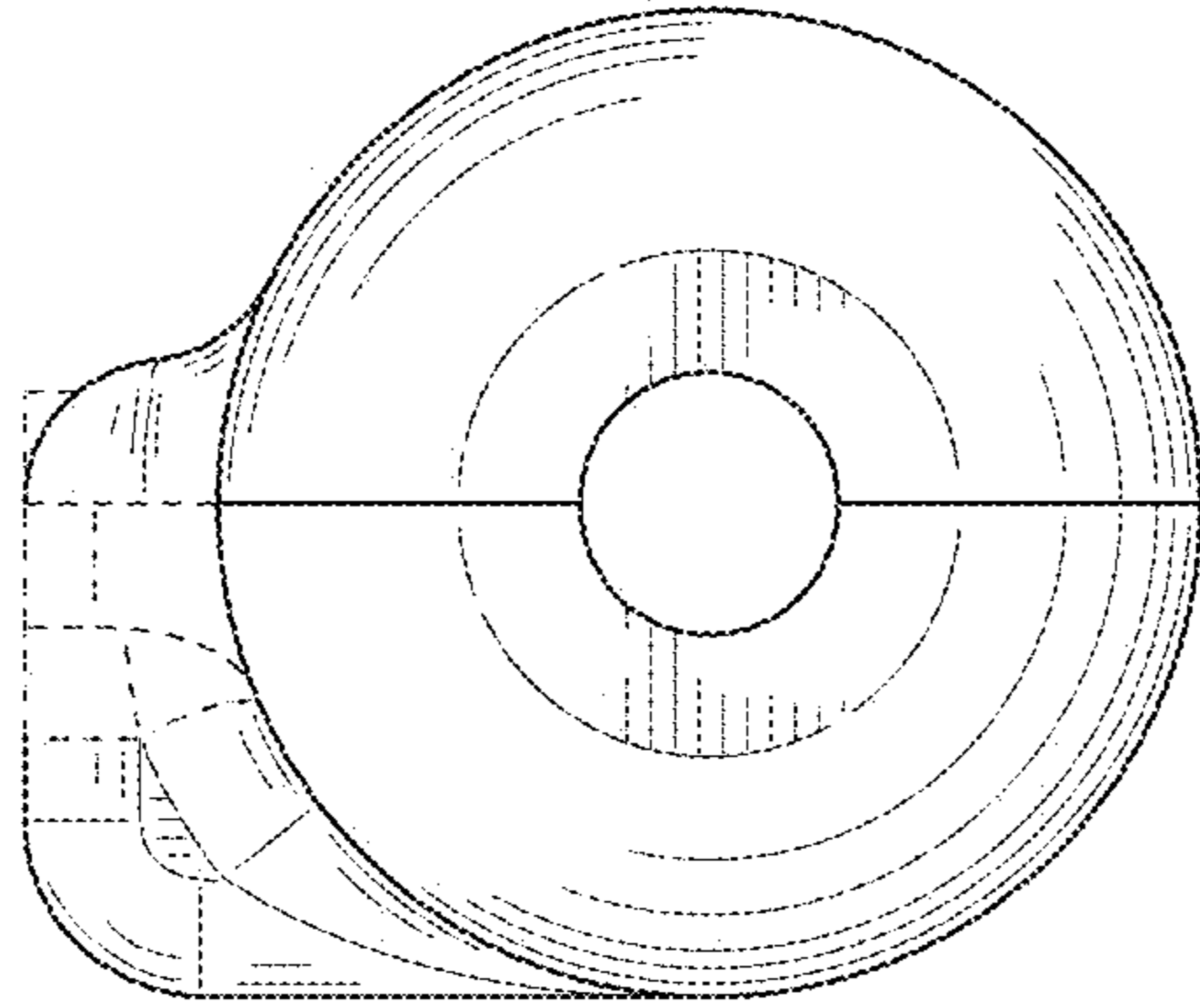


FIG. 37

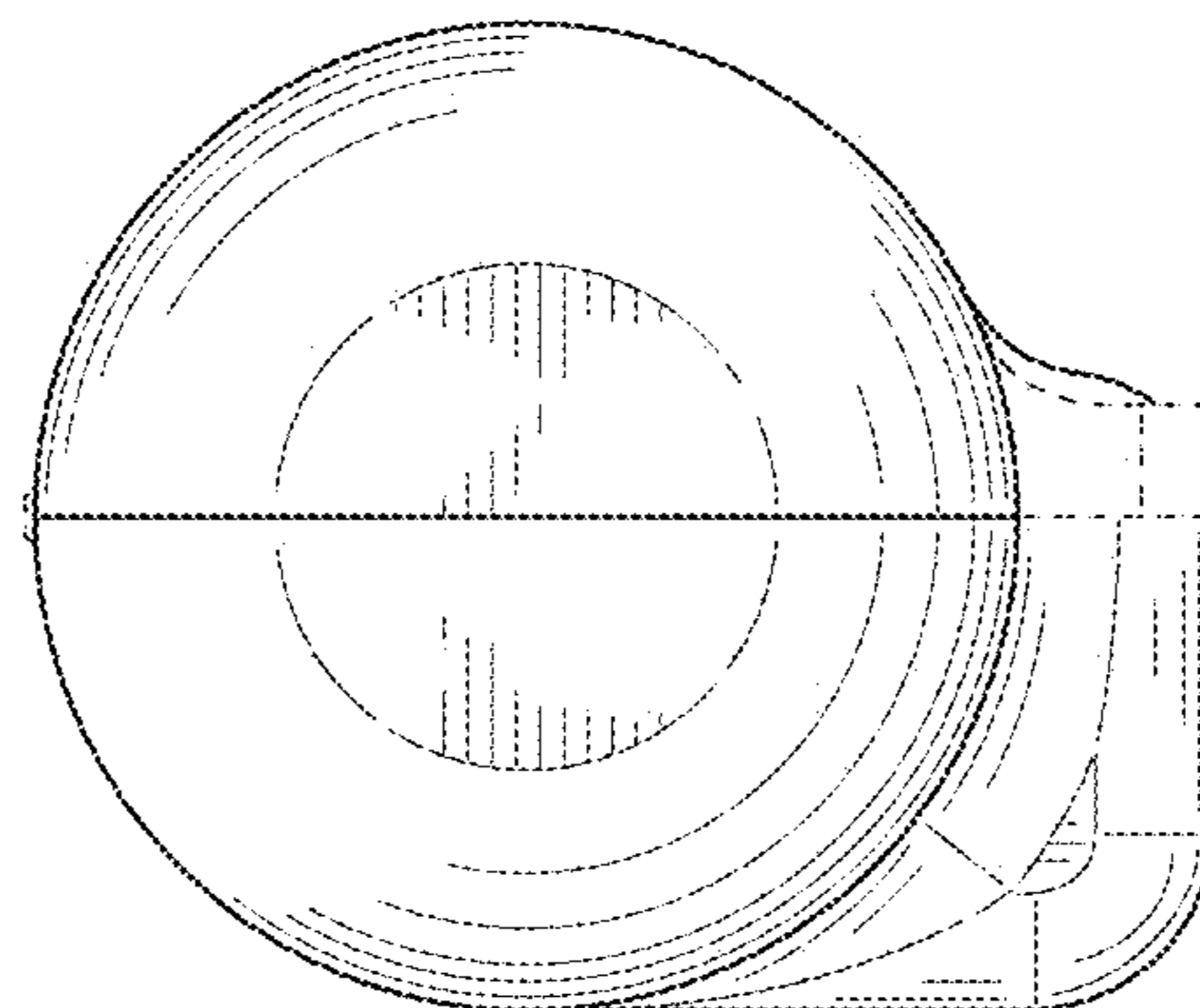


FIG. 38

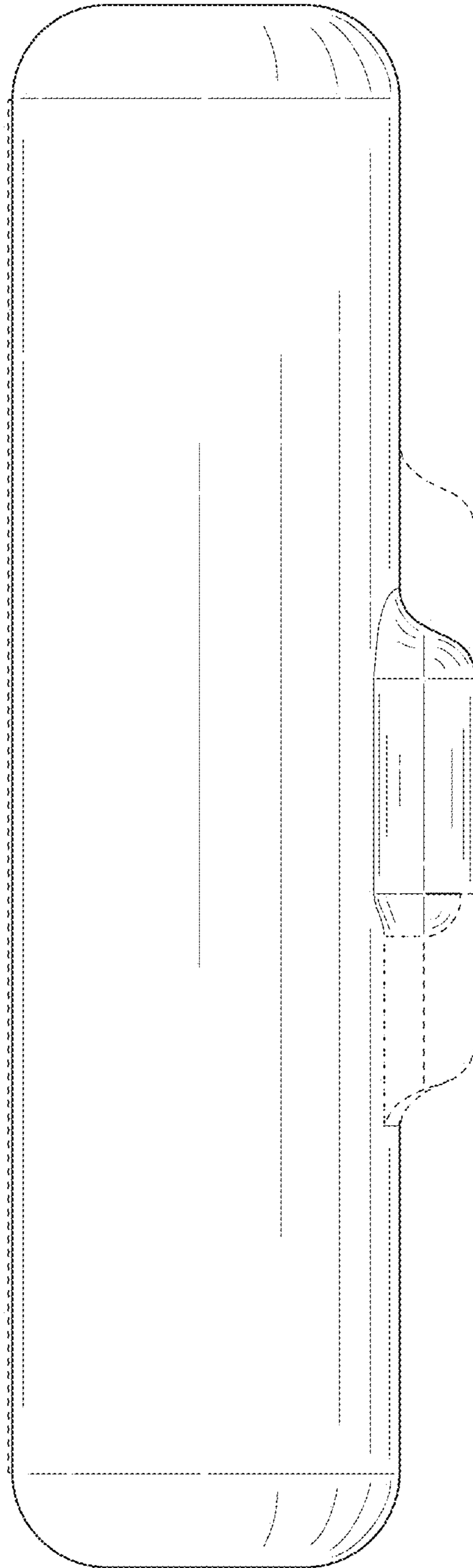


FIG. 39

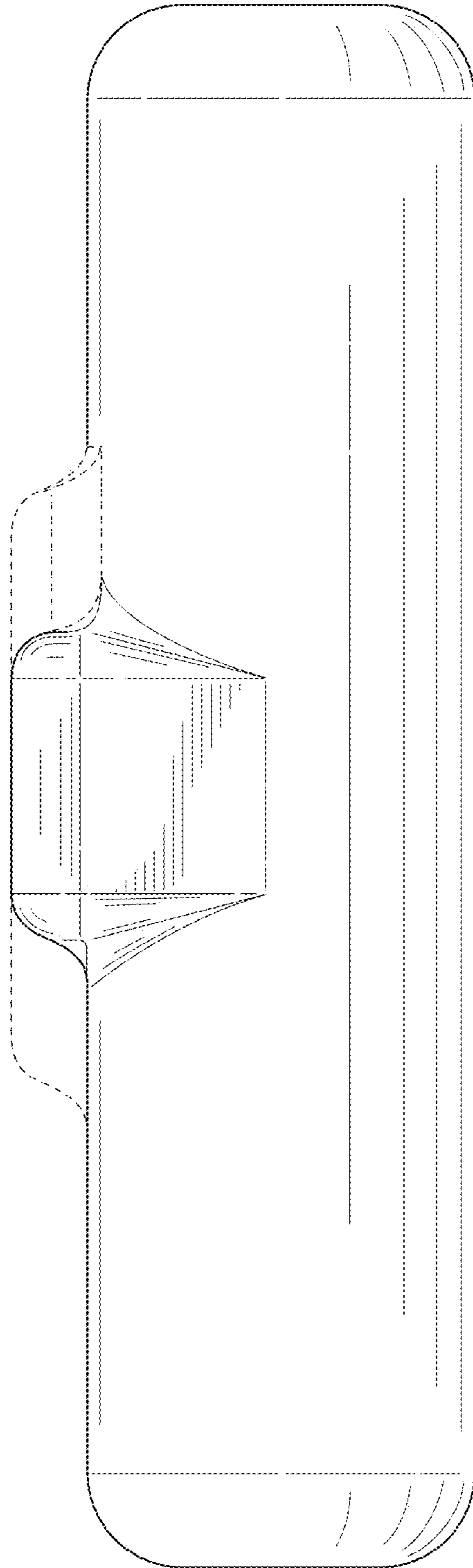


FIG. 40

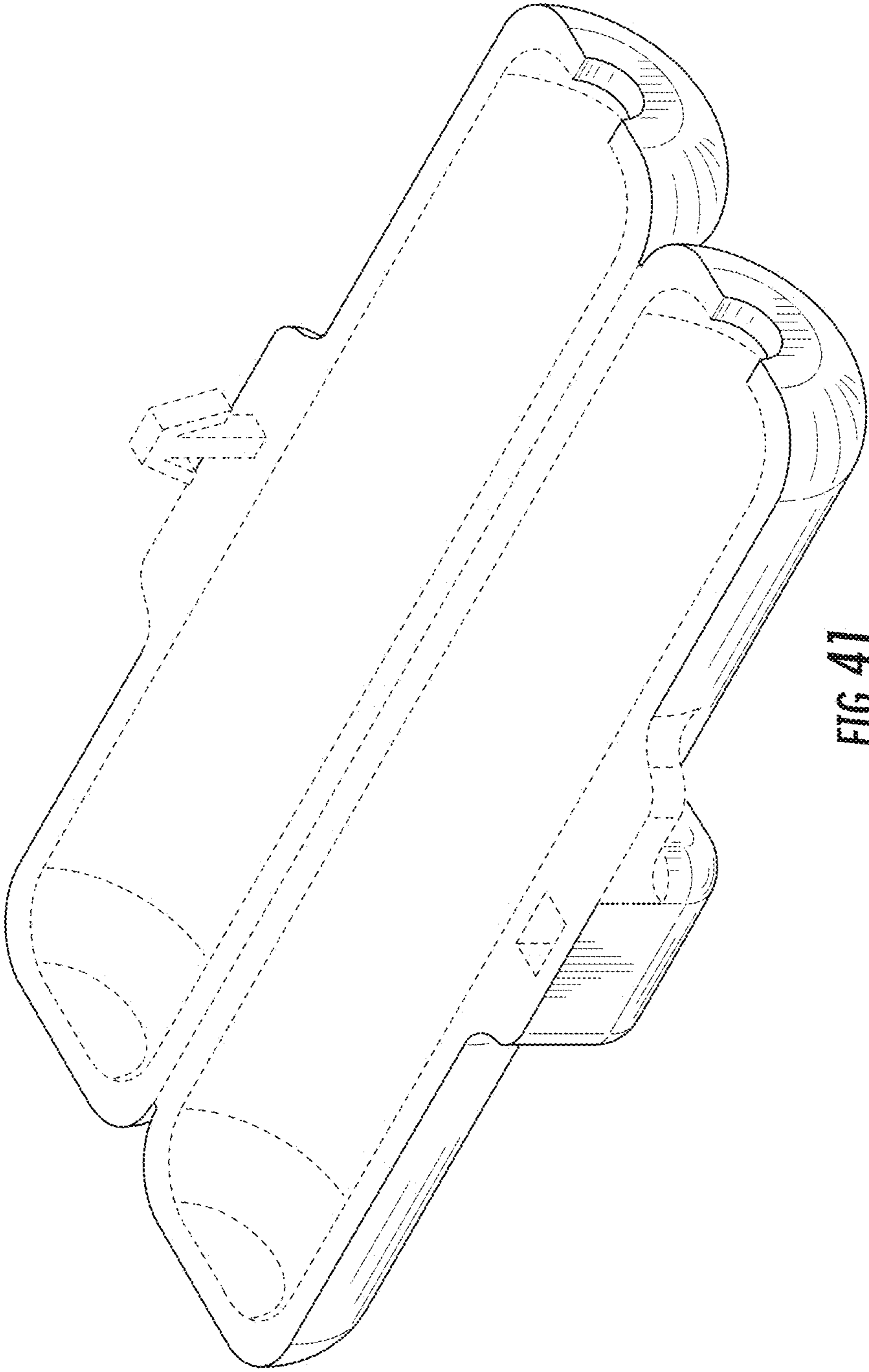


FIG. 41

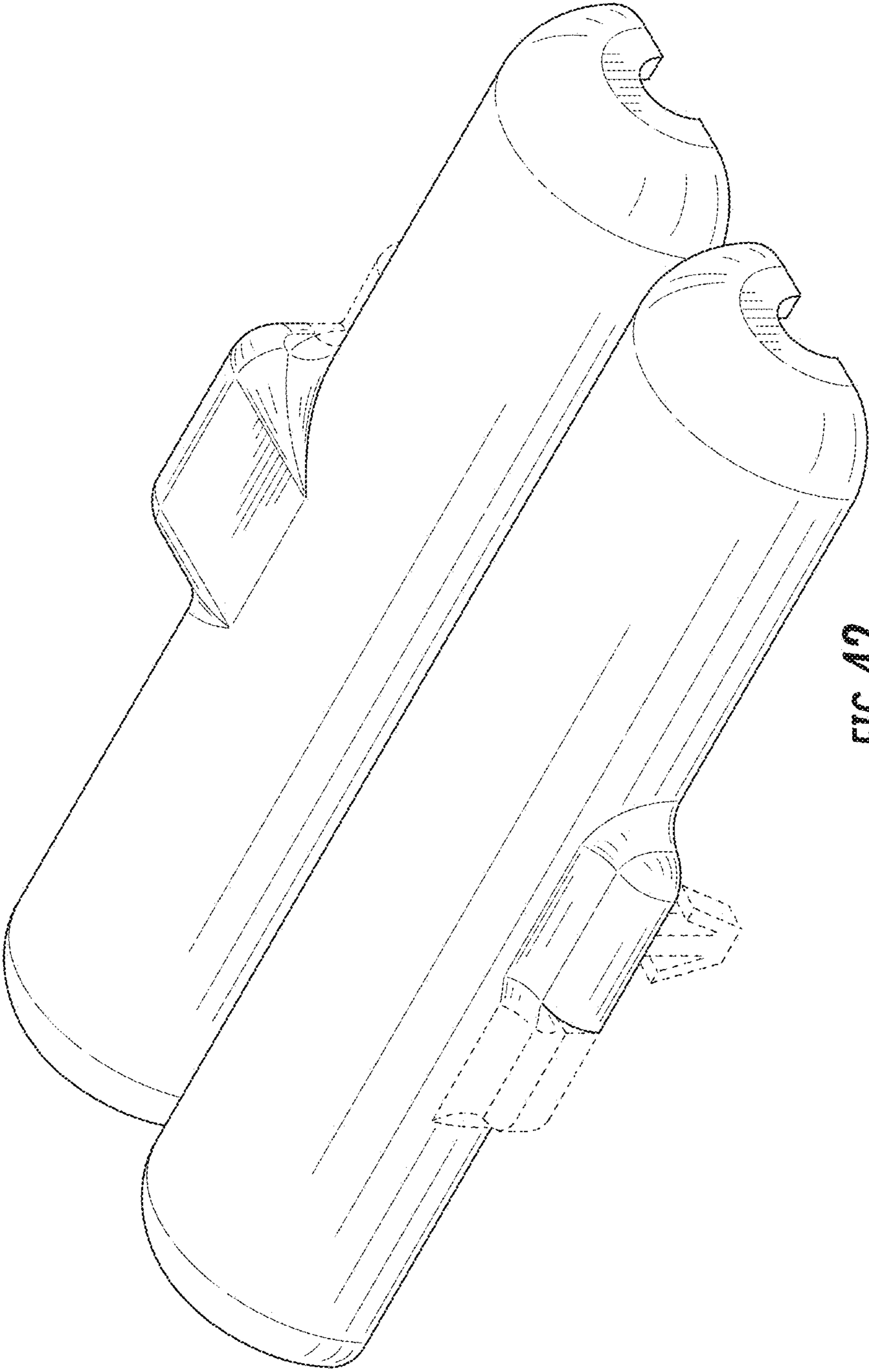


FIG. 42

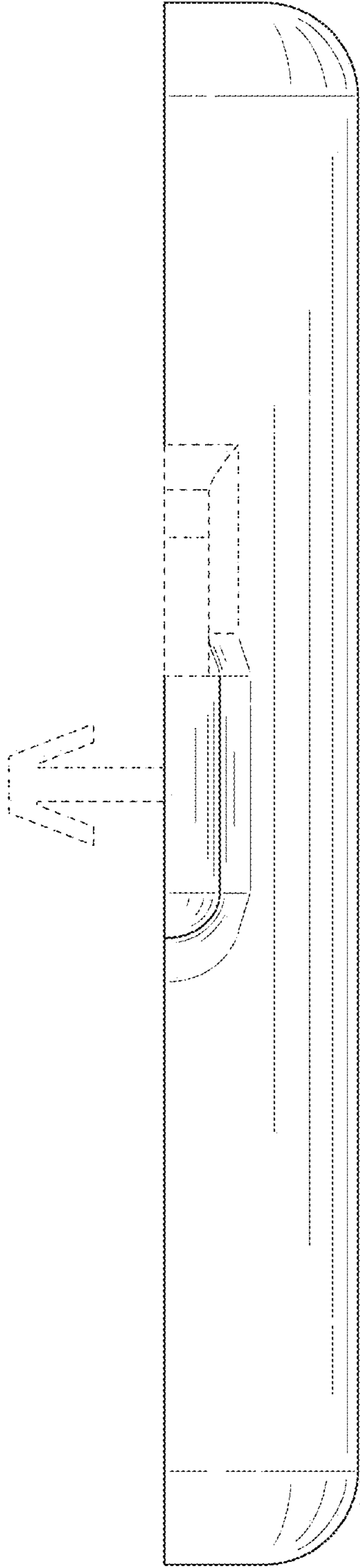


FIG. 43

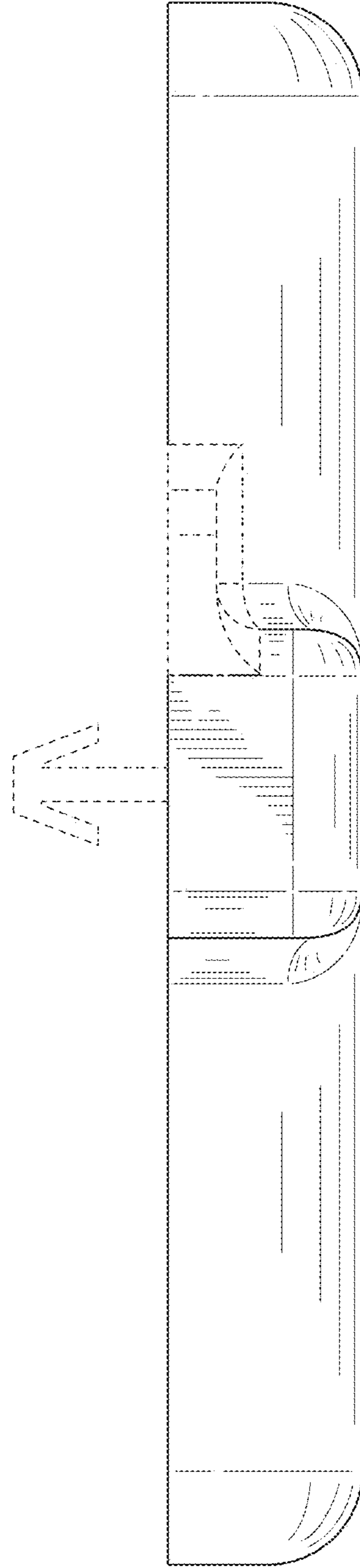


FIG. 44

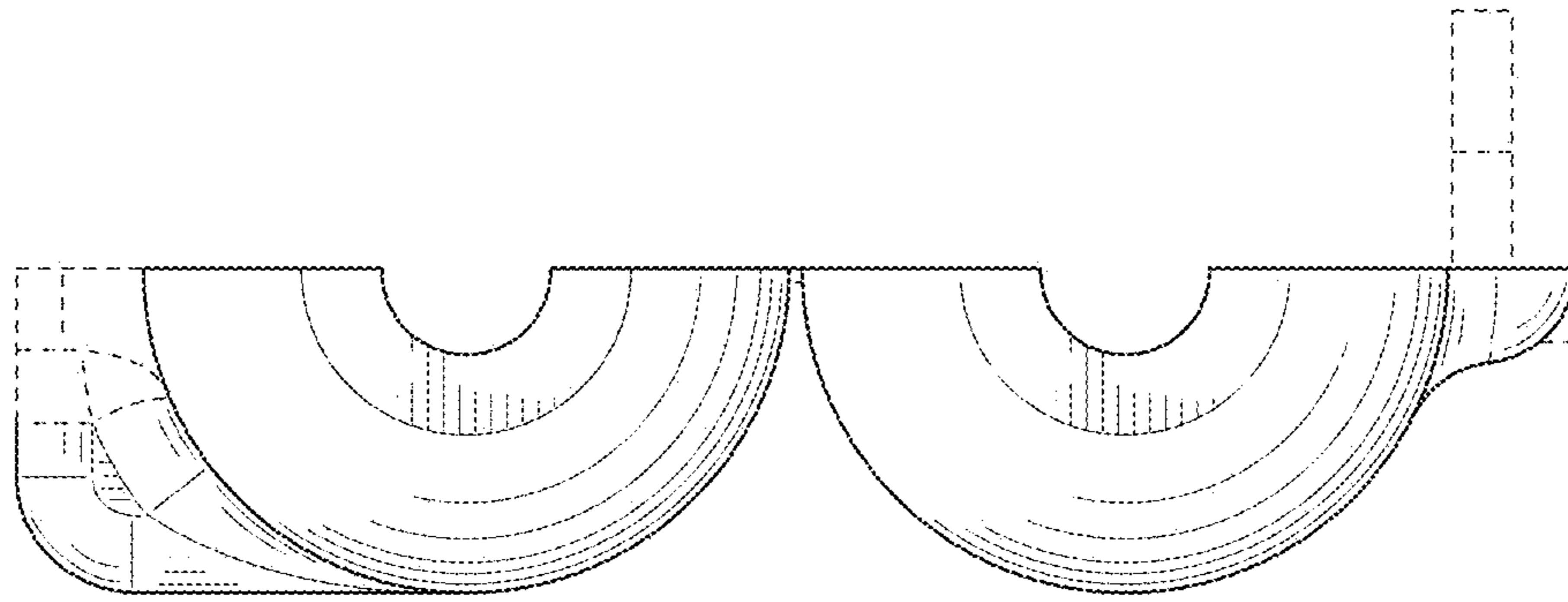


FIG. 45

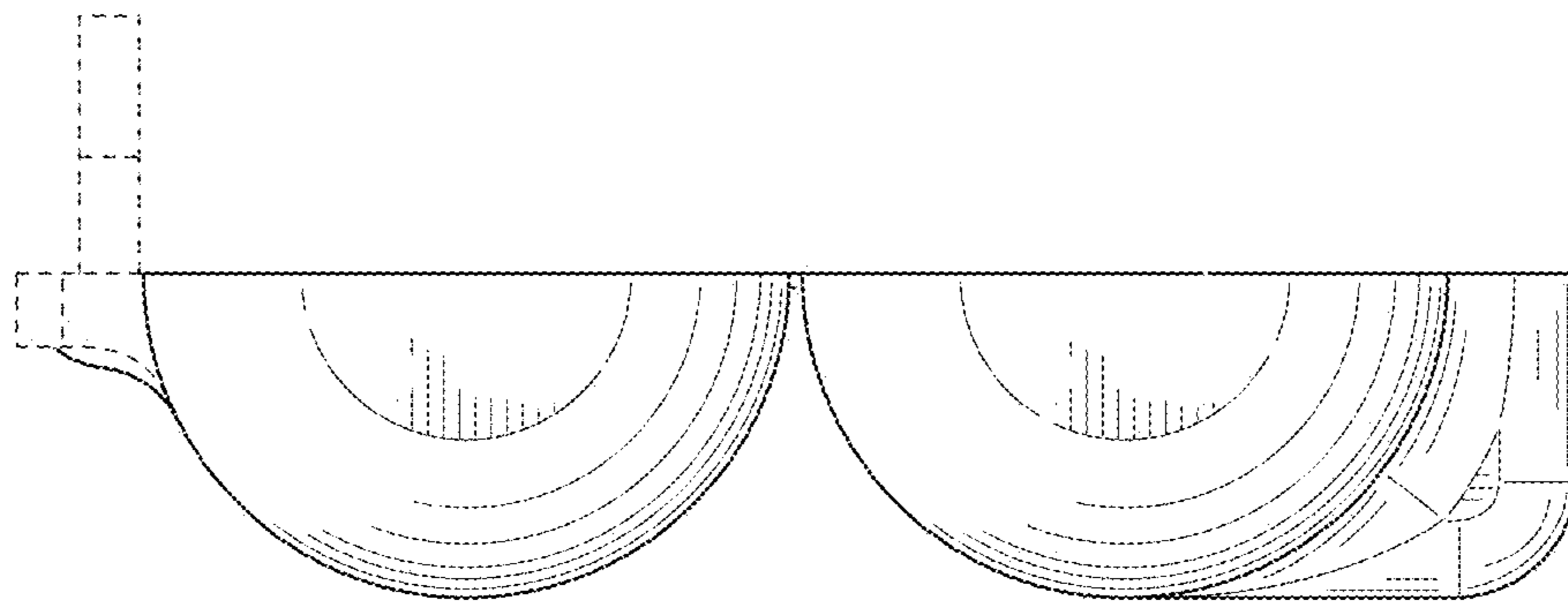


FIG. 46

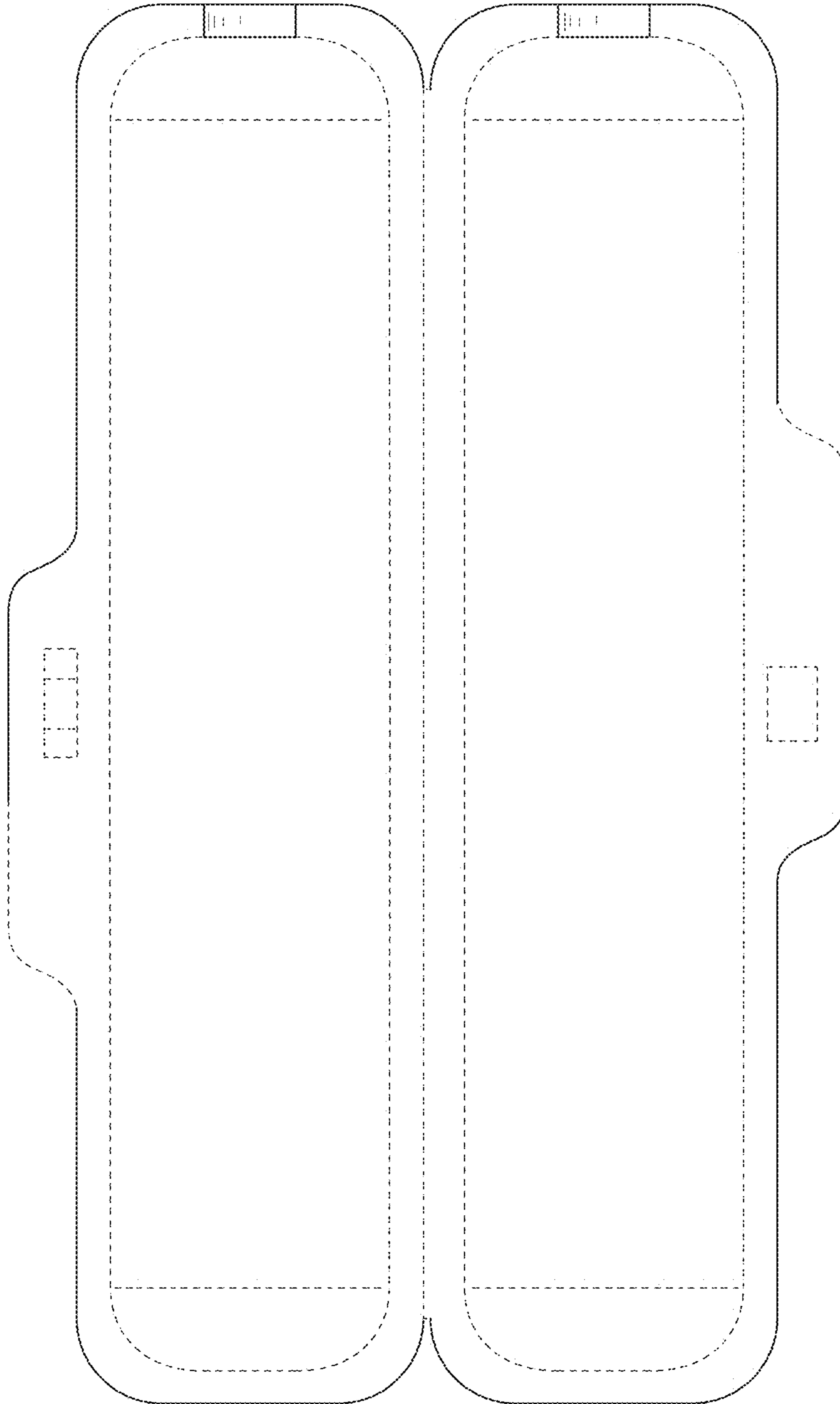


FIG. 47

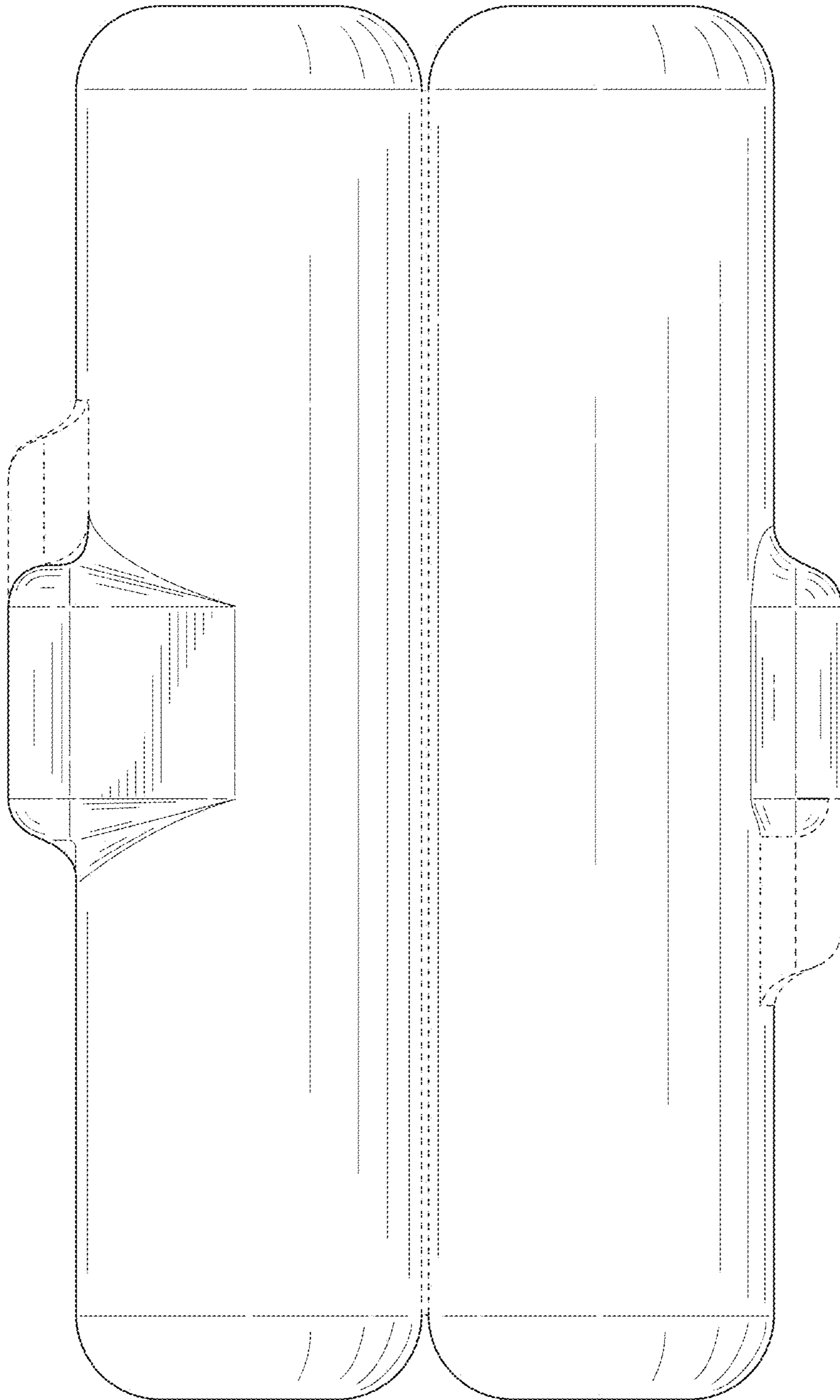


FIG. 48